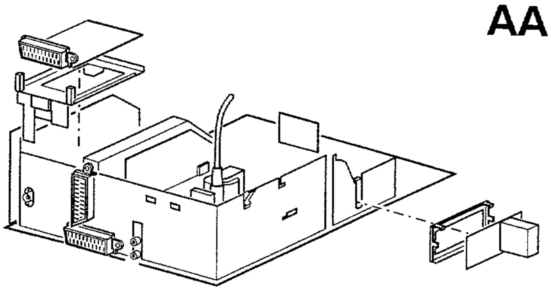
Colour television **Chassis**

GR 2.4
AA

Service
Service
Service



CL 46532048/016
270694

Service Manual

Contents

			Page	
1.	Technical specification		2	
2.	Connection facilities		2	
3.	Warnings and notes		3	
4.	Mechanical instructions		3	
5.	Overview oscillograms		4	
	Wiring diagram		4	
	Testpoint overview		4	
	Detailed block diagram		5	
6.	*Electrical diagrams and PC-board layouts*		*Diagram*	*PWB*
	Control	(Diagram A)	6	9/11
	Tuner, IF and sound	(Diagram B)	7	9/11
	Video processing	(Diagram C)	8	9/11
	Power supply, synchronization, frame and line	(Diagram D)	10	9/11
	Picture tube module	(Diagram E)	12	12
	Euro module (teletext)	(Diagram F1/F2)	15	14
	Sops controle module	(Diagram G)	17	20
	Comb filter	(Diagram H)	18	19
	Scanning module	(Diagram I)	20	20
	NICAM IF/sound module	(Diagram J/K)	21/22	23
	Stereo IF/sound module	(Diagram L/M)	25/26	24
	Third scart module	(Diagram N)	27	19
7.	Electrical adjustments		28	
8.	List of error messages and repair tips		28	
9.	Directions for use and survey of menus		29	
10.	Electrical spare parts lists		31	

Published by Consumer Electronics Printed in The Netherlands ©Copyright reserved Subject to modification GB 4822 727 20662

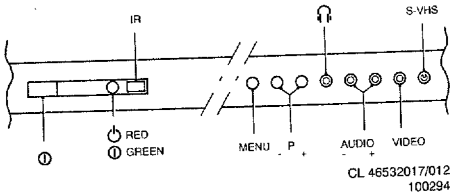
PCS 74 232 GB

PHILIPS

1. Technical specification

Mains voltag	:220 - 240 V (± 10%)
Mains frequency	:50 Hz (± 10%)
Aerial input impedance	:75Ω - coax
Minimum aerial voltage	:32μV
Maximum aerial voltage	:32mV
Pull-in range colour synchronization	:± 300Hz
Pull-in range horizontal synchronization	:± 300Hz

Local operation functions:



Programmes	: 0-89
VCR operation on programmes	: 0-89

Indications:

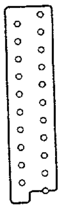
- On Screen Display (OSD)

- LED:
  - standby (red)
  - operation (green)
  - RC5 reception (flashing yellow)
  - I^2C bus fault in μP (flashing white)

2. Connection facilities

1. Specification of the terminal sockets

EXT1/EXT2



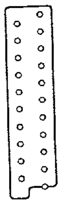
Pin			
1	- Audio	⊖→	R (0,5VRMS 1kΩ)
2	- Audio	→⊙	R (0,2 - 2VRMS; 0,5 V_{nom}; ≥ 10kΩ)
3	- Audio	⊖→	L (0,5VRMS 1kΩ)
4	- Audio	⊥	
5	- Blue	⊥	
6	- Audio	→⊙	L (0,2 - 2VRMS; 0,5 V_{nom}; ≥ 10kΩ)
7	- Blue	→⊙	(0,7V_{pp}/75Ω)
8	- CVBS-Status (0-2V: int.; 9,5-12V: EXT-4/3; 4,5V-7,5V:EXT-16/9)		
9	- Green	⊥	
10	- -		
11	- Green	→⊙	(0,7V_{pp}; 75Ω)
12	- -		
13	- Red	⊥	
14	- -		
15	- Red /	→⊙	(0,7V_{pp}; 75Ω)
15	- C-SVHS	→⊙	(0,3V_{pp}; 75Ω)
16	- Status		(0-0,4V: FB-OFF;1-3V FB-ON; 75Ω)
17	- CVBS	⊖→	⊥
18	- CVBS	→⊙	⊥
19	- CVBS	⊖→	(1V_{pp}/75Ω)
20	- CVBS	→⊙	(1V_{pp}/75Ω){EXT1}
20	- CVBS/ Y-SVHS	→⊙	(1V_{pp}/75Ω){EXT2}
21	- Earth screen		

EXT4

Pin			
1	- ⊥		
2	- ⊥		
3	- Y	→⊙	(1V_{pp}; 75Ω)
4	- C	→⊙	(1V_{pp}; 75Ω)

2x ◎	CINCH Audio	→⊙	L+R (0,2-2VRMS; 0,5 V_{nom} ≥ 10kΩ)
1x ◎	CINCH CVBS	→⊙	(1V_{pp}; 75Ω)

EXT3



Pin			
1	- Audio	⊖→	R (0,5VRMS; 1kΩ)
2	- Audio	→⊙	R (0,2 - 2VRMS; 0,5 V_{nom}; ≥ 10kΩ)
3	- Audio	⊖→	L (0,5VRMS; 1kΩ)
4	- Audio	⊥	
5	- ⊥		
6	- Audio	→⊙	L (0,2 - 2VRMS; 0,5 V_{nom}; ≥ 10kΩ)
7	- -		
8	- CVBS status 3	⊖→	(0-2V: int.; 9,5-12V: ext.)
9	- ⊥		
10	- -		
11	- -		
12	- -		
13	- ⊥		
14	- ⊥		
15	- -		
16	- -		
17	- CVBS	⊖→	⊥
18	- CVBS	→⊙	⊥
19	- CVBS	⊖→	(1V_{pp}/75Ω)
20	- CVBS	→⊙	(1V_{pp}/75Ω)
21	- Earth screen		

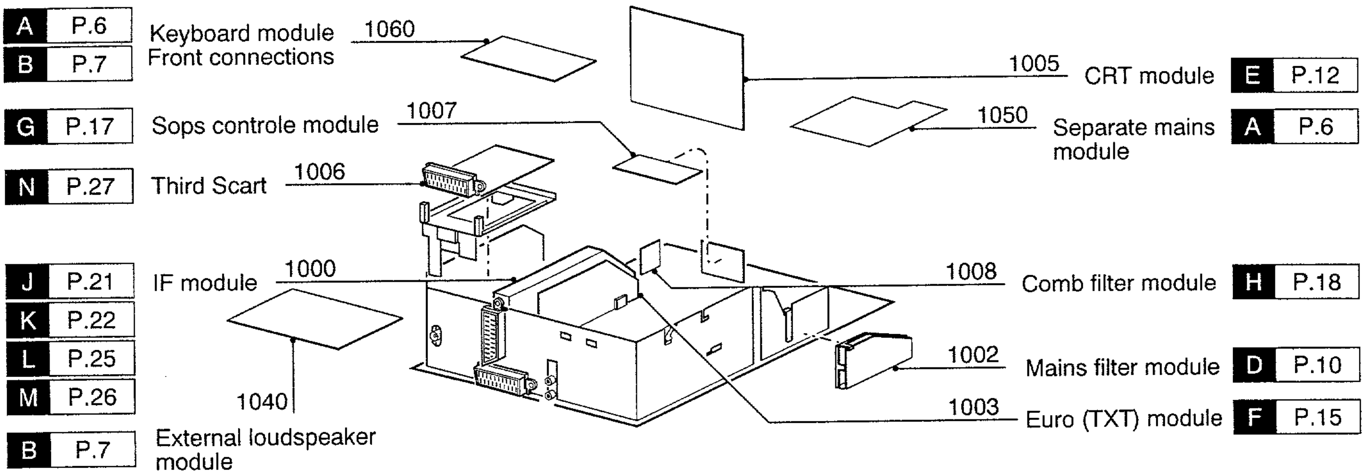
Audio out

2x ◎ CINCH Audio ⊖→ L+R (0,5VRMS; 1kΩ)

Front

◎ 3.5mm 🔈/🎧 8Ω

PWB location drawing


A P.6
B P.7
Keyboard module 1060
Front connections
G P.17
Sops controle module 1007
N P.27
Third Scart 1006
J P.21
K P.22
L P.25
M P.26
IF module 1000
1040
B P.7
External loudspeaker module
1005 CRT module E P.12
1050 Separate mains module A P.6
1008 Comb filter module H P.18
1002 Mains filter module D P.10
1003 Euro (TXT) module F P.15

CL 46532048/015
270694

3. Safety instructions, Maintenance instructions, Warnings and Notes

Safety Instructions for Repairs

1. Safety regulations require that during a repair:
   - the set should be connected to the mains via an isolating transformer
   - safety components, indicated by the symbol ⚠, should be replaced by components identical to the original ones P.12
   - when replacing the CRT, safety goggles must be worn. P.6

2. Safety regulations require also that after a repair:
   - the set should be returned in its original condition
   - the cabinet should be checked for defects to avoid touching, by the customer, of inner parts P.18
   - the insulation of the mains lead should be checked for external damage
   - the mains lead strain relief should be checked on its function P.10
   - the cableform and EHT cable are routed correctly and fixed with the mounted cable clamps in order to avoid touching of the CRT, hot components or heat sinks P.15
   - the electrical resistance between mains plug and the secondary side is checked. This check can be done as follows:
     - unplug the mains cord and connect a wire between the two pins of the mains plug
     - switch on the TV with the main switch
     - measure the resistance value between the pins of the mains plug and the metal shielding of the tuner or the aerial connection on the set. The reading should be between 4.5 MΩ and 12 MΩ.
     - switch off the TV and remove the wire between the two pins of the mains plug
   - thermally loaded solder joints should be resoldered. This includes components like LOT, the line output transistor, fly-back capacitor.

532048/015
270694

Maintenance Instructions

It is recommended to have a maintenance inspection carried out periodically by a qualified service employee. The interval depends on the usage conditions.

- When the set is used in a living room the recommended interval is 3 to 5 years. When the set is used in the kitchen or garage this interval is 1 year.
- During the maintenance inspection the above mentioned "safety instructions for repair" should be carried out. The power supply and deflection circuitry on the chassis, the CRT panel and the neck of the CRT should be cleaned.

Warnings

1. In order to prevent damage to IC's and transistors, all high-voltage flashovers must be avoided. In order to prevent damage to the picture tube, it should be discharged using the method shown in Fig.3.1. Use a high-voltage probe and a multimeter (position DC-V). Discharge until the meter reading is OV (after approx. 30s).

2. **ESD** ⚠

   All ICs and many other semiconductors are sensitive to electrostatic discharges (ESD). Careless handling during repair can drastically shorten their life. Make sure that during repair you are connected by a pulse band with resistance to the same potential as the earth of the unit. Keep components and tools also at this same potential.

3. Be careful when taking measurements in the high-voltage section and on the picture tube.

4. Never replace modules or other components while the unit is switched on.

5. When making settings, use plastic rather than metal tools.
   This will prevent any short circuits and the danger of a circuit becoming unstable.

6. In order to prevent measuring errors, the heat sinks should not be used as reference points for measurements.
   The heat sink for the sound output amplifier (next to the channel selector) is connected to the -16 or -12 volts.

7. Together with the deflection unit and any multipole unit, the flat square picture tubes used form an integrated unit. The deflection and the multipole units are set optimally at the factory. Adjustment of this unit during repair is therefore not recommended.

8. The high-voltage cable in 21" units is glued in the line output transformer. This can therefore not be replaced.

Notes

1. The picture tube PCB has printed spark gaps. Each spark gap is connected between an electrode of the picture tube and the Aquadag coating.

2. Blackline units can be recognized by the thick, protected high-voltage cable. Non-blackline units have a thin, unprotected high-voltage cable.

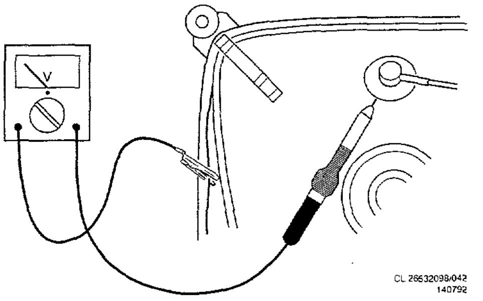


Fig. 3.1

sitive to
ng
lake
pulse
ne earth
this

hile the

metal

ger of a

sinks

r (next to
6 or -12

pole unit,
grated
set
during

the line
eplaced.

Each
of the

its have

4. Mechanical instructions

1. Removing the back plate

It is only possible to remove the back plate after removing the screws on the top, side, possibly on the underneath **and possibly above the EXT 2 connection**. In the case of subwoofer units, the subwoofer speaker on the carrier panel should also be unplugged (see Fig. 4.2a).

2. Service position 1

Service position for module service and to measure test points
Unlock the chassis after the cables of the degaussing coil and any PIP module have been disconnected, and pull it backwards until all test points are accessible (see Fig. 4.2b).
In order to make the tuner and the IF/sound module accessible, the bracket above these modules can be removed (see Fig. 4.3). With the exception of one fault message, the unit continues to function normally when the PIP module is not connected.

3. Service position 2

Service position for repair
Place the chassis on the heat sink on the tuner side after service position 1 is reached (see Fig. 4.4).
Or in case of FL4 cabinet there is a service hook where the chassis with bracket can be hanged on
(see fig. 4.1). Be careful with the wiring!!

Warning: make sure that the heat sink of the sound output amplifier does not form a short circuit with the raster/line heat sink if the bracket of the third scart has been removed !

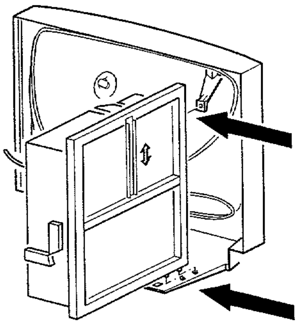


Fig. 4.1

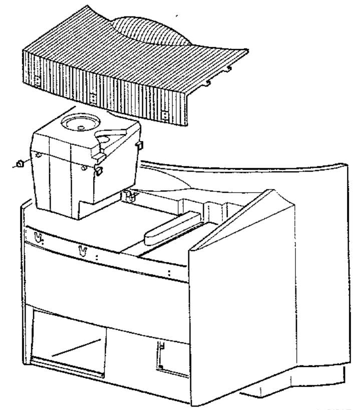


Fig. 4.2a

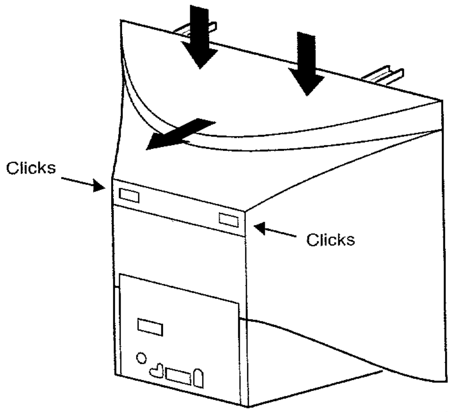


Fig. 4.2b

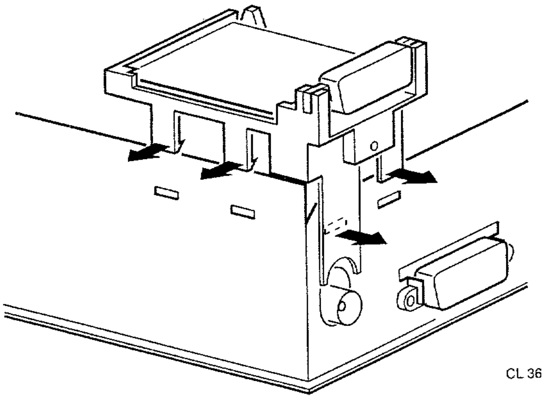


Fig. 4.3

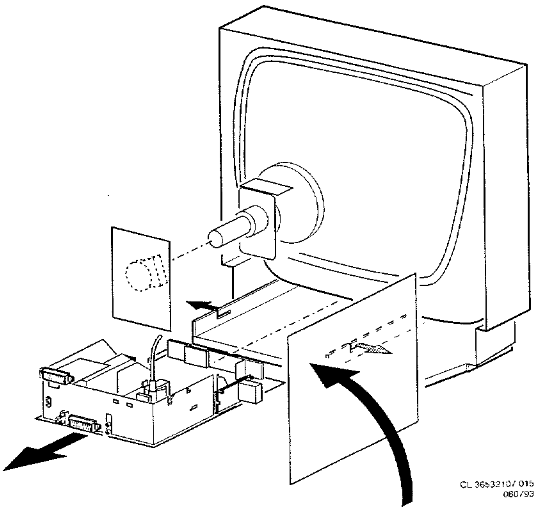
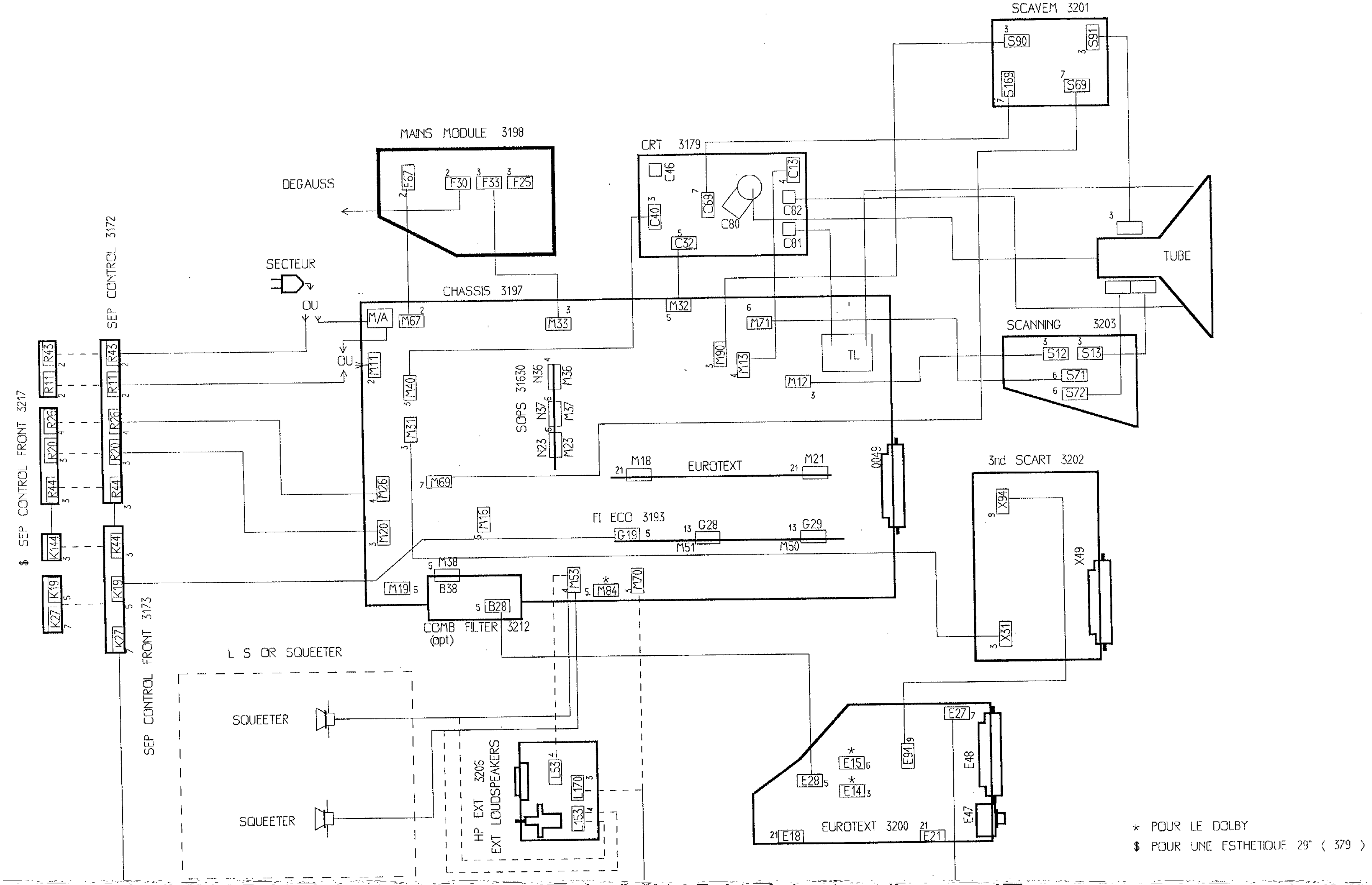


Fig. 4.4

PCS 74 235

Wiring diagram/Verdrahtungsschema/Schéma de câblage

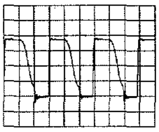

SCAVEM 3201
S90
S91
S169
S69
MAINS MODULE 3198
E57
F30
F33
F25
DEGAUSS
CRT 3179
C46
C69
C13
C82
C80
C40
C32
C81
TUBE
SECTEUR
OU
CHASSIS 3197
M/A
M67
M33
M32
M71
M11
M40
M90
M13
M12
TL
SCANNING 3203
S12
S13
S71
S72
SEP CONTROL 3172
R43
R11
R26
R20
R44
K44
K19
K27
$ SEP CONTROL FRONT 3217
K144
SEP CONTROL FRONT 3173
SOPS 31630
N36
M36
N37
M37
N23
M23
M31
M69
M18
EUROTEXT
M21
0049
M26
M20
M16
FI ECO 3193
G19
G28
G29
M51
M50
3nd SCART 3202
X94
X49
X31
M38
B38
M19
M53
M84
M70
B28
COMB FILTER 3212
(opt)
L S OR SQUEETER
SQUEETER
SQUEETER
HP EXT 3206
EXT LOUDSPEAKERS
L53
L170
L53
E27
E15
E14
E28
E94
E48
E47
EUROTEXT 3200
E18
E21
* POUR LE DOLBY
$ POUR UNE ESTHETIQUE 29" (379)

Oscillograms/Oszillogramme/Oscillogrammes

TP1 = DC 15V9

TP2 = DC -15V9

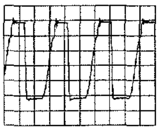
TP3



20V/div AC
5µs div

TP4 = DC 9V7

TP5

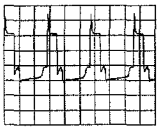


5V/div AC
5µs div

TP6 = DC 4V8

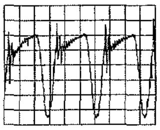
TP7 = DC 298V

TP8



2V/div AC
5µs div

TP9



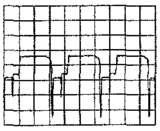
0.2V/div AC
5µs div

TP10 = DC 2V4

TP11 = DC 0V

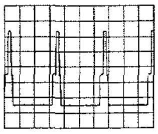
TP12 = DC 2V7

TP14



2V/div AC
20µs div

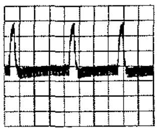
TP16



2V/div AC
20µs div

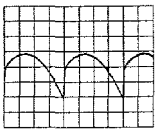
TP17 = DC 0V

TP18



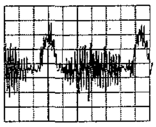
2V/div AC
5ms div

TP19



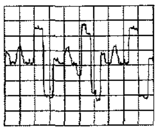
1V/div AC
5ms div

TP20



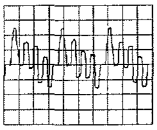
20mV/div AC
10µs div

TP21



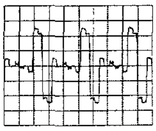
0.1V/div AC
20µs div

TP22



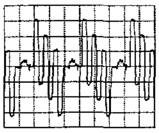
0.2V/div AC
20µs div

TP23



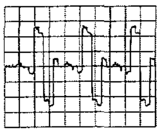
0.2V/div AC
20µs div

TP24



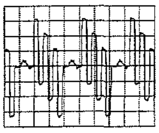
0.2V/div AC
20µs div

TP25



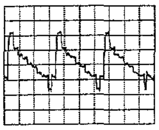
0.2V/div AC
20µs div

TP26



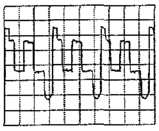
0.2V/div AC
20µs div

TP27



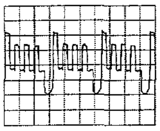
0.1V/div AC
20µs div

TP28



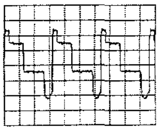
0.5V/div AC
20µs div

TP29



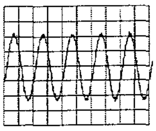
0.5V/div AC
20µs div

TP30



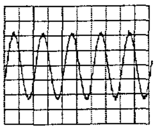
0.5V/div AC
20µs div

TP31



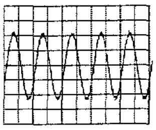
10mV/div AC
0.5ms div

TP32



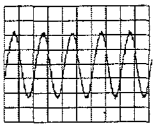
10mV/div AC
0.5ms div

TP33



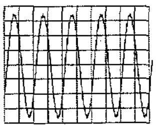
10mV/div AC
0.5ms div

TP34



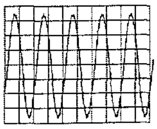
10mV/div AC
0.5ms div

TP35



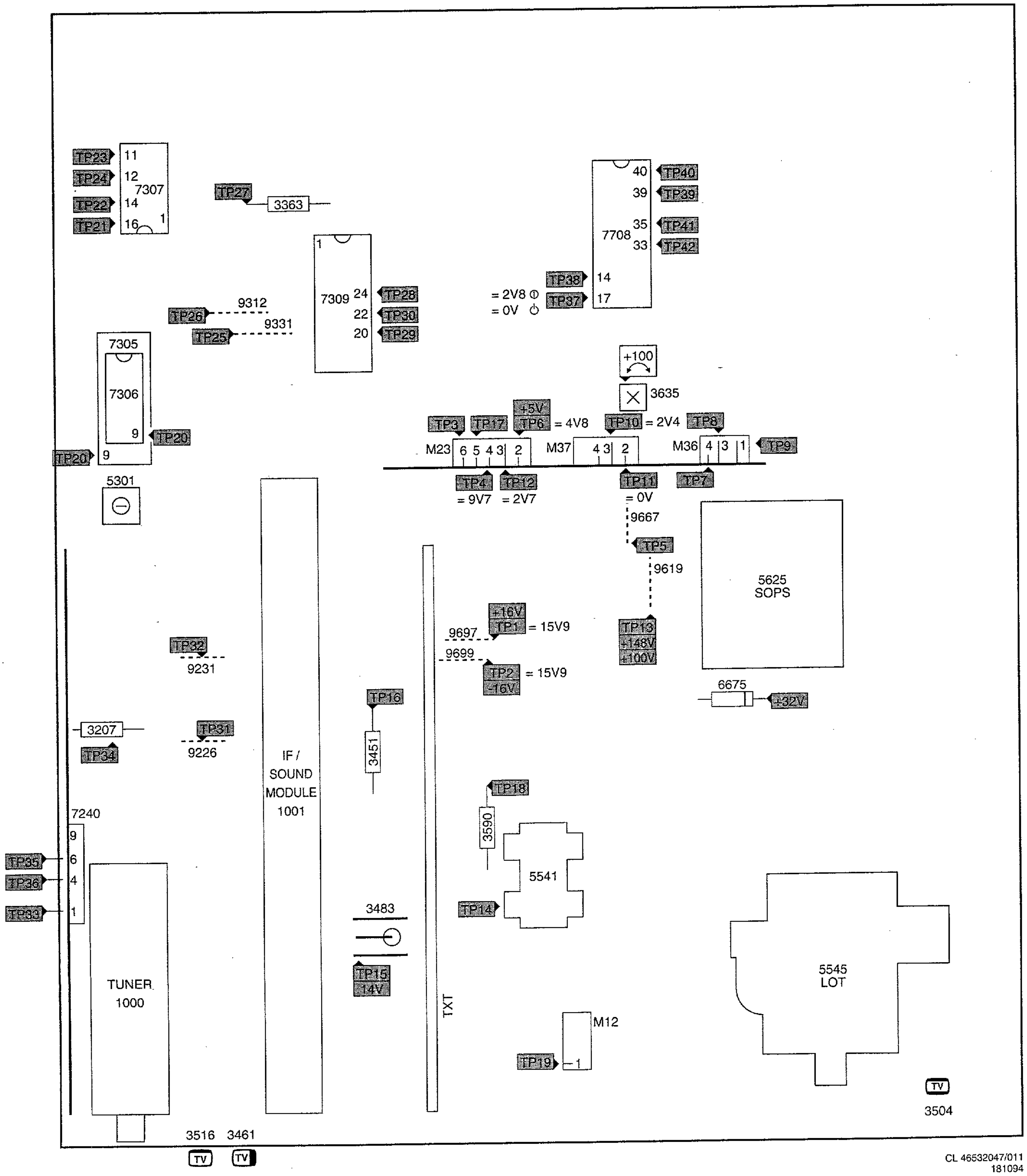
200mV/div AC
0.5ms div

TP36



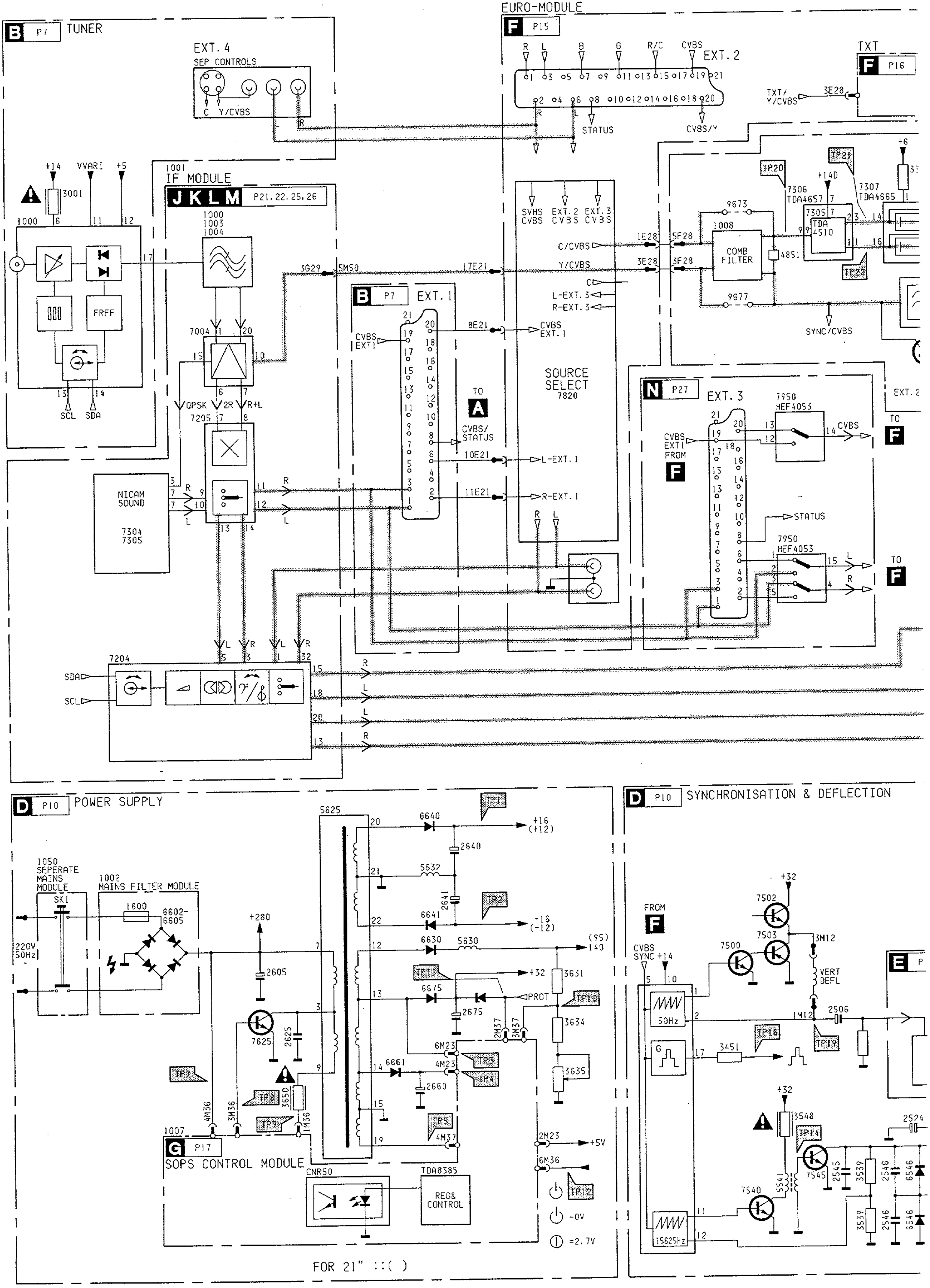
200mV/div AC
0.5ms div

Test point overview/Übersicht Teststellen/Tableau des points à tester

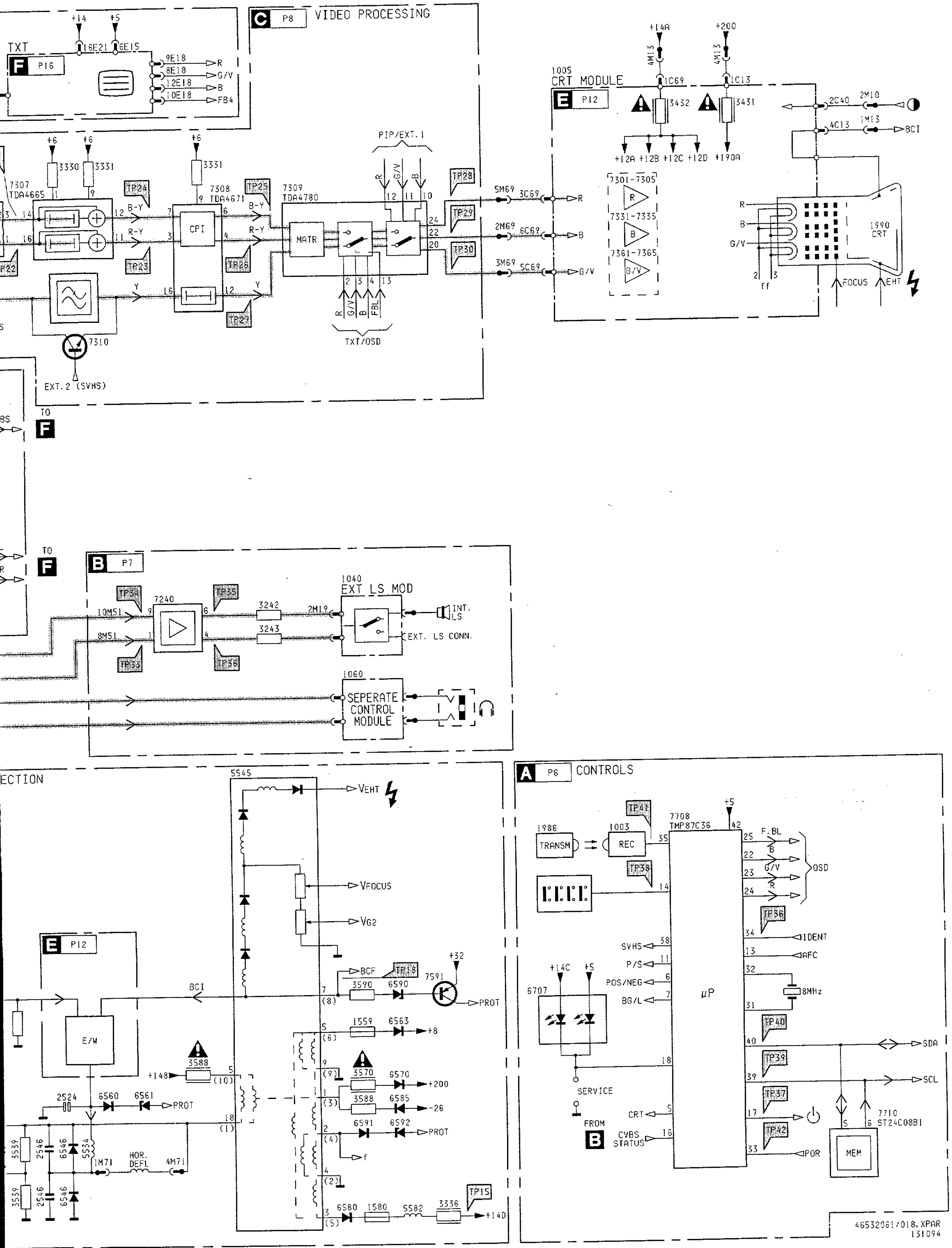

TP23
TP24
TP22
TP21
11
12
7307
14
16
1
TP27
3363
1
7309
24
22
20
TP28
TP30
TP29
9312
9331
TP26
TP25
40
39
35
33
TP40
TP39
TP41
TP42
7708
TP38
TP37
14
17
= 2V8
= 0V
+100
3635
7305
7306
9
TP20
TP20
9
5301
+5V
TP3
TP17
TP6
= 4V8
TP10
= 2V4
TP8
TP9
M23
6 5 4 3 2
M37
4 3 2
M36
4 3 1
TP4
TP12
= 9V7
= 2V7
TP11
= 0V
TP7
9667
TP5
9619
5625
SOPS
+16V
TP1
= 15V9
9697
9699
TP2
-16V
= 15V9
TP13
+148V
+100V
6675
+32V
TP32
9231
TP16
3451
3207
TP31
9226
TP34
IF / SOUND MODULE 1001
TP18
3590
7240
9
6
4
1
TP35
TP36
TP33
5541
TP14
3483
TP15
14V
TXT
5545
LOT
TUNER 1000
M12
TP19
1
TV
3504
3516
3461
TV
TV

CL 46532047/011
181094

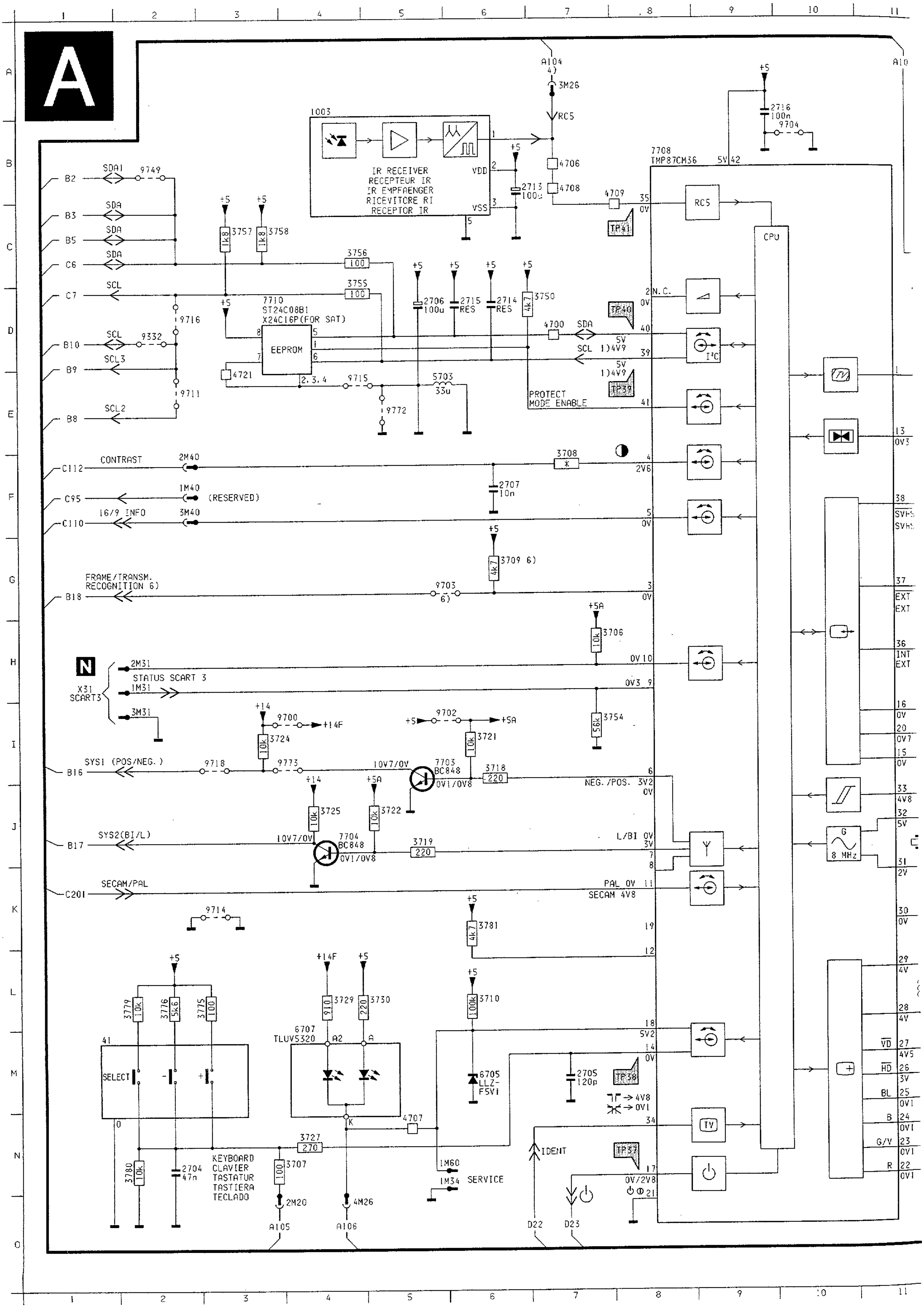
Block diagram/Blockschaltbild/Schéma-bloc

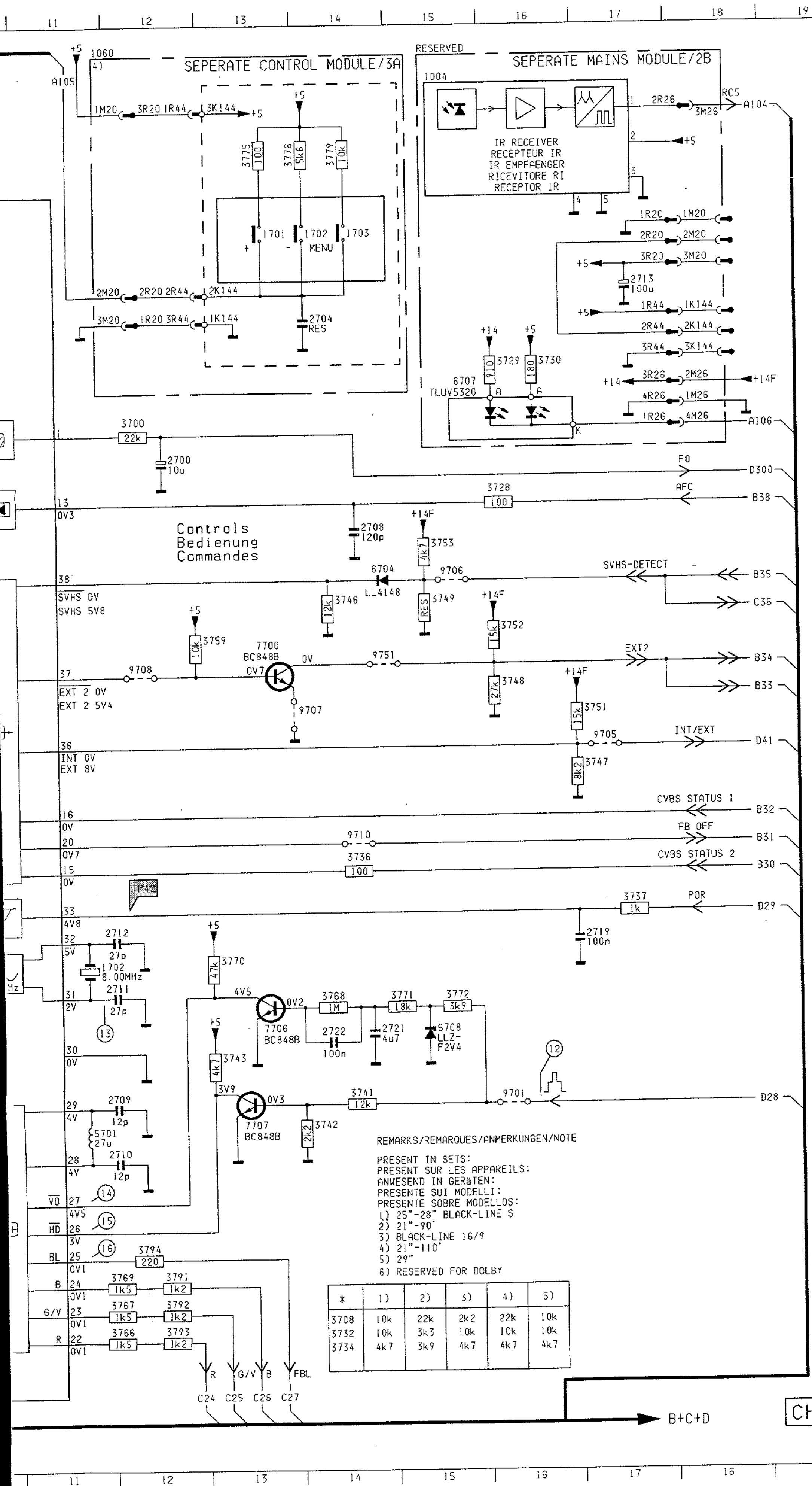


1006
EURO-MODULE
B P7 TUNER
EXT. 4
SEP CONTROLS
C Y/CVBS
L R
F P15
R L B G R/C CVBS
EXT. 2
STATUS
CVBS/Y
TXT
F P16
TXT/
Y/CVBS
3E28
+14 VVARI +5
3001
1000
FREF
SCL SDA
1001
IF MODULE
JKLM P21,22,25,26
1000
1003
1004
7004
7205
QPSK 2R R+L
NICAM
SOUND
7304
7305
3G29 5M50 17E21
B P7 EXT. 1
CVBS
EXT1
8E21
10E21
11E21
TO
A
CVBS/
STATUS
SVHS CVBS
EXT. 2 CVBS
EXT. 3 CVBS
C/CVBS
Y/CVBS
C
L-EXT. 3
R-EXT. 3
CVBS
EXT. 1
L-EXT. 1
R-EXT. 1
SOURCE
SELECT
7820
1E28 5F28
3E28 3F28
1008
COMB
FILTER
4851
9673
9677
SYNC/CVBS
TP20
TP21
TP22
7306
TDA4657
7307
TDA4665
+14D
+6
7305
TDA
4510
N P27
EXT. 3
CVBS
EXT1
FROM
F
7950
HEF4053
CVBS
STATUS
L R
TO
F
EXT. 2
7204
SDA
SCL
L R L R
15 18 20 13
D P10 POWER SUPPLY
1050
SEPERATE
MAINS
MODULE
SK1
1002
MAINS FILTER MODULE
1600
6602-
6605
220V
50Hz
+280
2605
7625
2625
5625
6640
+16
(+12)
2640
5632
2641
6641
-16
(-12)
6630 5630
(95)
140
+32
3631
6675
PROT
2675
3634
3635
6M23
4M23
2M37
3M37
6661
2660
4M37
2M23
+5V
6M36
TP1 TP2 TP3 TP4 TP5 TP7 TP8 TP9 TP10 TP11 TP12
4M36 3M36 3650 1M36
1007
G P17
SOPS CONTROL MODULE
CNR50
TDA8385
REG&
CONTROL
=0V
=2.7V
FOR 21" ::( )
D P10 SYNCHRONISATION & DEFLECTION
FROM
F
CVBS
SYNC +14
50Hz
15625Hz
7500
7502
7503
3M12
VERT
DEFL
1M12
2506
3451
TP16
TP19
+32
3548
TP14
7545
7540
5541
2545
3539
2546
6546
2524
E


C
P8
VIDEO PROCESSING
TXT
F
P16
+14
+5
16E21
6E15
9E18
8E18
12E18
10E18
R
G/V
B
FB4
+6
3330
3331
7307
TDA4665
TP24
B-Y
R-Y
TP23
TP22
7308
TDA4671
CPI
TP25
TP26
TP27
Y
7309
TDA4780
MATR
PIP/EXT.1
TP28
TP29
TP30
TXT/OSD
FBL
7310
EXT.2 (SVHS)
TO
5M69
3C69
2M69
6C69
3M69
5C69
+14A
+200
4M13
1005
CRT MODULE
1C69
1C13
E
P12
3432
3431
+12A
+12B
+12C
+12D
+190A
7301-7305
7331-7335
7361-7365
2C40
2M10
4C13
1M13
BCI
1990
CRT
FOCUS
EHT
ff
B
P7
TP34
TP35
7240
10M51
8M51
TP33
TP36
3242
3243
2M19
1040
EXT LS MOD
INT.
LS
EXT. LS CONN.
1060
SEPERATE
CONTROL
MODULE
ECTION
5545
VEHT
VFOCUS
VG2
BCF
TP18
+32
3590
6590
7591
PROT
E/W
BCI
1559
6563
+8
3588
+148
3570
6570
+200
6585
-26
6591
6592
f
2524
6560
6561
3539
2546
6546
5534
1M71
HOR.
DEFL
4M71
6580
1580
5582
3336
TP15
+14D
A
P6
CONTROLS
TP41
7708
TMP87C36
+5
1986
TRANSM
1003
REC
TP38
F.BL
OSD
TP36
IDENT
AFC
SVHS
P/S
POS/NEG
BG/L
µP
8MHz
+14C
6707
SERVICE
TP40
SDA
TP39
SCL
TP37
CRT
FROM
CVBS
STATUS
TP42
POR
7710
ST24C08B1
MEM
4653206I/018.XPAR
131094

Controls/Bedienung/Commandes


A
1003
IR RECEIVER
RECEPTEUR IR
IR EMPFAENGER
RICEVITORE RI
RECEPTOR IR
VDD
VSS
A104
3M26
RC5
4706
4708
2713 100u
4709
TP41
2716 100n
9704
7708
TMP87CM36
RC5
CPU
N.C.
TP40
SDA
SCL
4700
I²C
PROTECT MODE ENABLE
TP39
B2
SDA1
9749
B3
SDA
B5
C6
C7
SCL
3757 1k8
3758 1k8
3756 100
3755 100
7710
ST24C08B1
X24C16P(FOR SAT)
EEPROM
2706 100u
2715 RES
2714 RES
3750 4k7
9716
B10
9332
B9
SCL3
4721
9715
5703 33u
9711
9772
B8
SCL2
C112
CONTRAST
2M40
3708
2707 10n
C95
1M40
(RESERVED)
C110
16/9 INFO
3M40
3709 6)
FRAME/TRANSM. RECOGNITION 6)
B18
9703
3706 10k
N
2M31
STATUS SCART 3
X31 SCART3
1M31
3M31
3754 56k
9700
+14F
9702
+5A
3724 10k
3721 10k
B16
SYS1 (POS/NEG.)
9718
9773
10V7/0V
7703 BC848
0V1/0V8
3718 220
NEG./POS. 3V2 0V
3725 10k
3722 10k
B17
SYS2(BI/L)
10V7/0V
7704 BC848
0V1/0V8
3719 220
L/BI 0V 3V
C201
SECAM/PAL
PAL 0V
SECAM 4V8
9714
3781 4k7
3779 10k
3776 5k6
3775 100
3729 910
3730 220
3710 100k
41
SELECT
6707 TLUV5320
4707
6705 LLZ-F5V1
2705 120p
TP38
3780 10k
2704 47n
3727 270
3707 100
KEYBOARD
CLAVIER
TASTATUR
TASTIERA
TECLADO
2M20
4M26
A105
A106
1M60
1M34
SERVICE
IDENT
TP37
D22
D23
8 MHz
SVHS
EXT
INT
VD
HD
BL
B
G/Y
R
A10


11
12
13
14
15
16
17
18
19
20
SEPERATE CONTROL MODULE/3A
RESERVED
SEPERATE MAINS MODULE/2B
1060
4)
A105
+5
1M20
3R20 1R44
3K144
3775 100
3776 5k6
3779 10k
1701
1702
1703
MENU
2M20
2R20 2R44
2K144
3M20
1R20 3R44
1K144
2704 RES
1004
IR RECEIVER
RECEPTEUR IR
IR EMPFAENGER
RICEVITORE RI
RECEPTOR IR
RC5
2R26
3M26
A104
1R20
1M20
2R20
2M20
3R20
3M20
2713 100u
1R44
1K144
2R44
2K144
3R44
3K144
+14
3729 910
3730 180
6707 TLUV5320
3R26
2M26
+14F
4R26
1M26
1R26
4M26
A106
3700 22k
2700 10u
F0
D300
3728 100
AFC
B38
13
0V3
2708 120p
+14F
3753 4k7
Controls
Bedienung
Commandes
38
SVHS 0V
SVHS 5V8
6704 LL4148
3746 12k
3749 RES
9706
SVHS-DETECT
B35
C36
3752 15k
3759 10k
7700 BC848B
0V
0V7
9751
EXT2
B34
B33
37
EXT 2 0V
EXT 2 5V4
9708
3748 27k
3751 15k
9707
9705
INT/EXT
D41
36
INT 0V
EXT 8V
3747 8k2
CVBS STATUS 1
B32
16
0V
20
0V7
9710
FB OFF
B31
3736 100
CVBS STATUS 2
B30
15
TP42
33
4V8
3737 1k
POR
D29
2719 100n
32
5V
2712 27p
1702 8.00MHz
31
2V
2711 27p
3770 47k
4V5
7706 BC848B
0V2
3768 1M
2722 100n
3771 18k
2721 4u7
3772 3k9
6708 LLZ-F2V4
30
0V
3743 4k7
3V9
7707 BC848B
0V3
3741 12k
3742 2k2
9701
D28
29
4V
2709 12p
5701 27u
28
4V
2710 12p
VD
27
4V5
HD
26
3V
BL
25
0V1
3794 220
B
24
3769 1k5
3791 1k2
G/V
23
3767 1k5
3792 1k2
R
22
3766 1k5
3793 1k2
R
G/V
B
FBL
C24
C25
C26
C27
B+C+D

REMARKS/REMARQUES/ANMERKUNGEN/NOTE

PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERäTEN:
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:
1) 25"-28" BLACK-LINE S
2) 21"-90°
3) BLACK-LINE 16/9
4) 21"-110°
5) 29"
6) RESERVED FOR DOLBY

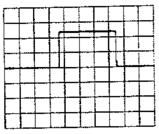
*	1)	2)	3)	4)	5)
3708	10k	22k	2k2	22k	10k
3732	10k	3k3	10k	10k	10k
3734	4k7	3k9	4k7	4k7	4k7

A

TP37a = DC 2V8

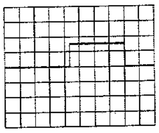
TP37b = DC 0V

TP38a
control +



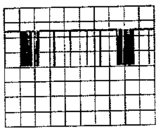
2V/div DC
0.2s div

TP38b
control -



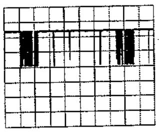
2V/div DC
0.2s div

TP39



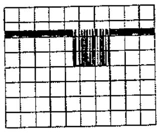
2V/div DC
20ms div

TP40



2V/div DC
20ms div

TP41
RC: volume +



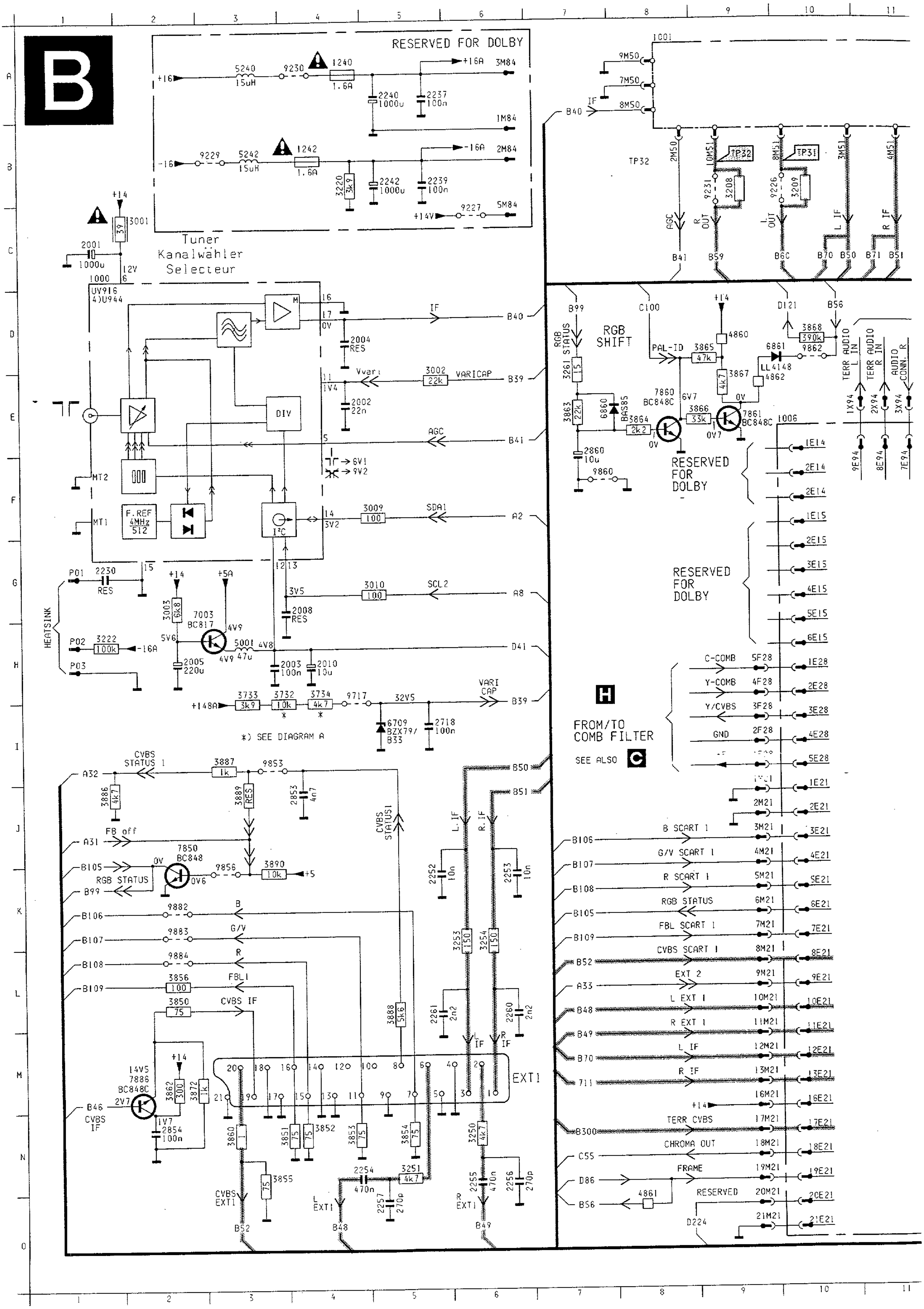
2V/div DC
10ms div

CHASSIS GR2.4

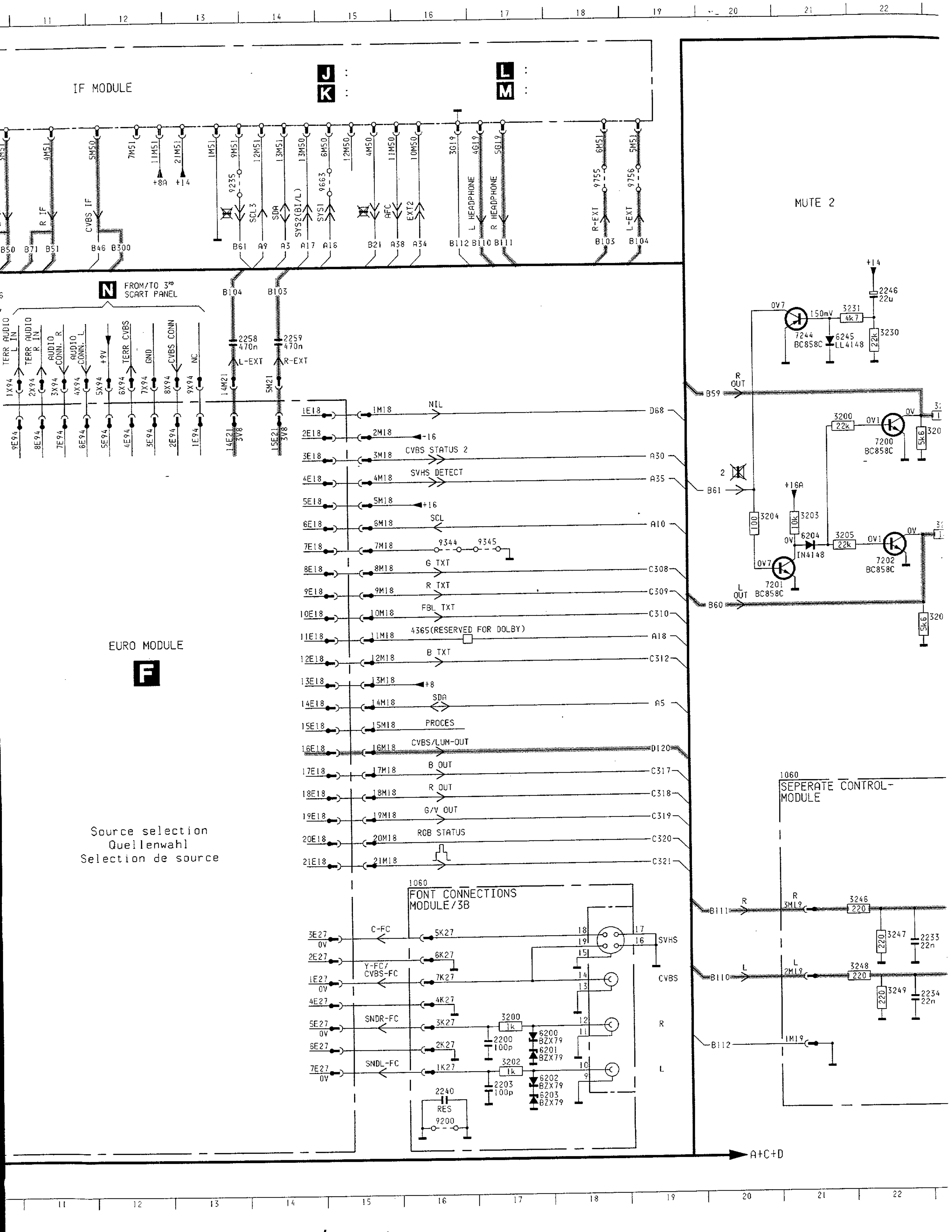
CL46532061/013.APAR
181094

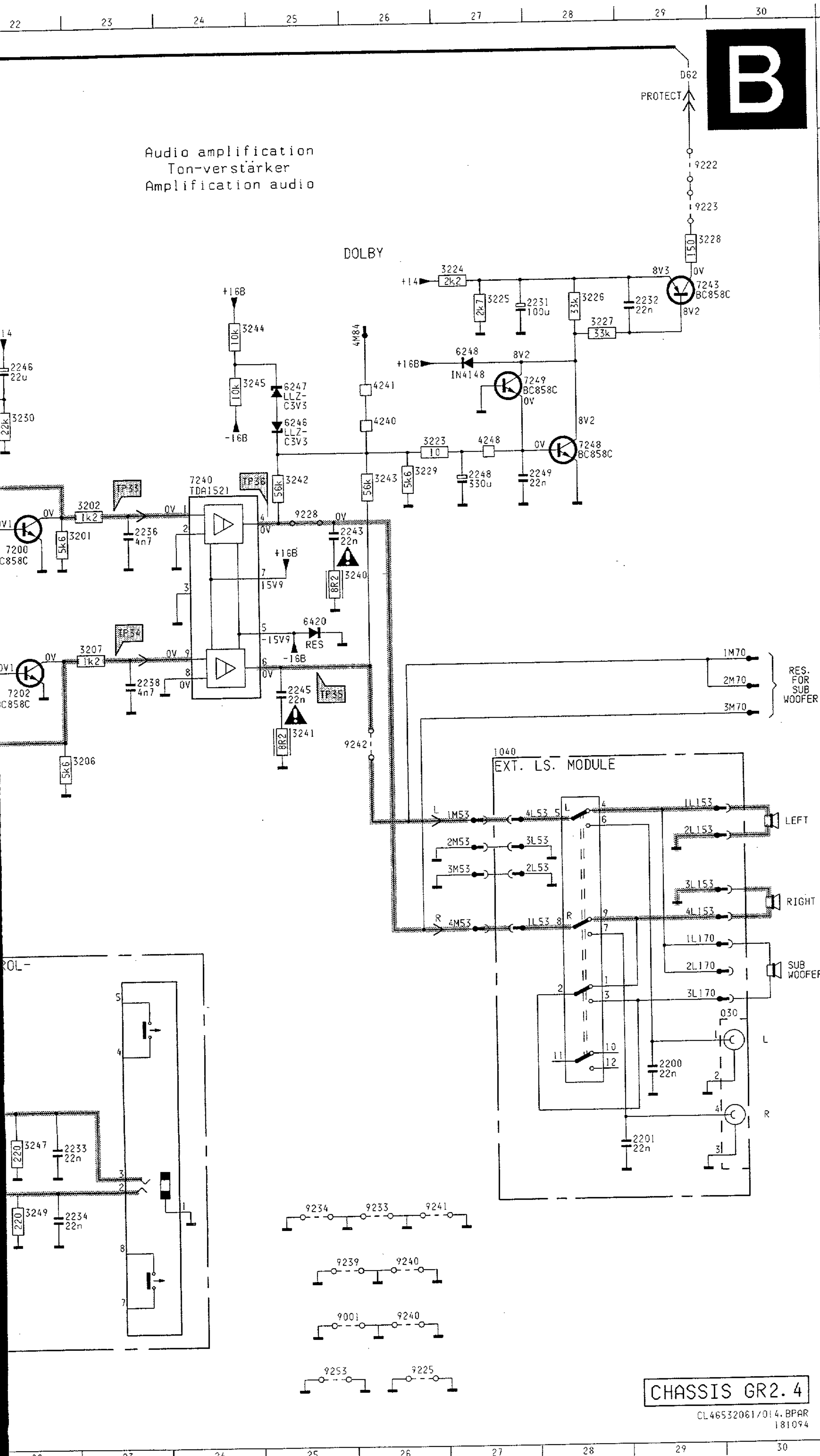
1003	A 4
1004	A15
1060	A11
1701	B13
1702	B14
1702	J11
1703	B14
2700	E12
2704	C14
2704	N 2
2705	M 7
2706	D 5
2707	F 6
2708	F14
2709	L12
2710	L12
2711	K12
2712	J12
2713	B 6
2713	C17
2714	D 6
2715	D 6
2716	A 9
2719	J17
2721	K14
2722	K14
3700	E12
3706	H 7
3707	N 3
3708	F 7
3709	G 6
3710	L 6
3718	I 6
3719	J 5
3721	I 6
3722	J 5
3724	I 3
3725	J 4
3727	N 4
3728	E16
3729	D16
3729	L 4
3730	D16
3730	L 5
3736	I14
3737	J17
3741	L14
3742	L14
3743	K13
3746	F14
3747	H17
3748	G16
3749	F15
3749	F15
3750	D 7
3751	H17
3752	G16
3753	F15
3754	I 7
3755	D 4
3756	C 4
3757	C 3
3758	C 3
3759	G13
3766	N12
3767	N12
3768	K14
3769	N12
3770	J13
3771	K15
3772	K15
3775	B13
3775	L 3
3776	B14
3776	L 2
3779	B14
3779	L 2
3780	N 2
3781	K 6
3791	N12
3792	N12
3793	N12
3794	M12
41	M 1
4700	D 7
4706	B 7
4707	N 5
4708	B 7
4709	B 8
4721	E 3
5701	L11
5703	E 5
6704	F14
6705	M 6
6707	D15
6707	M 4
6708	K15
7700	G13
7703	I 5
7704	J 4
7706	K13
7707	L13
7708	B 8
7710	D 3
9332	D 2
9700	I 4
9701	L16
9702	I 5
9703	G 5
9704	B10
9705	H17
9706	F15
9707	H14
9708	G12
9710	I14
9711	E 2
9714	K 3
9715	E 4
9716	D 2
9718	I 3
9749	B 2
9751	G14
9772	E 5
9773	I 4

Tuner/Kanalwähler/Sélecteur


B
RESERVED FOR DOLBY
+16
5240 15uH
9230
1240 1.6A
+16A 3M84
2240 1000u
2237 100n
1M84
-16
9229
5242 15uH
1242 1.6A
-16A 2M84
3220 3k9
2242 1000u
2239 100n
9227 5M84
+14V
+14
3001 39
2001 1000u
12V
Tuner
Kanalwähler
Selecteur
1000
UV916
4)U944
IF
B40
2004 RES
Vvari
3002 22k
VARICAP
B39
1V4
2002 22n
DIV
AGC
B41
6V1
9V2
MT2
MT1
F.REF 4MHz 512
I²C
3009 100
SDA1
A2
3V2
P01
2230 RES
+5A
3003 6k8
7003 BC817
3010 100
SCL2
A8
3V5
2008 RES
HEATSINK
P02
3222 100k
-16A
5V6
4V9
5001 47u
4V8
D41
2005 220u
2003 100n
2010 10u
P03
VARI CAP
+148A
3733 3k9
3732 10k
3734 4k7
9717
32V5
6709 BZX79/ B33
2718 100n
*) SEE DIAGRAM A
A32
CVBS STATUS 1
3887 1k
9853
3886 4k7
3889 RES
2853 4n7
CVBS STATUS1
A31
FB off
7850 BC848
B105
0V
0V6
9856
3890 10k
+5
RGB STATUS
B99
B106
9882
B
B107
9883
G/V
B108
9884
R
B109
3856 100
FBL1
3850 75
CVBS IF
14V5
7886 BC848C
B46
CVBS IF
2V7
1V7
3862 300
3872 1k
2854 100n
EXT1
3860 1
3855 75
3851 75
3852
3853 75
3854 75
3888 5k6
CVBS EXT1
B52
2254 470n
3251 4k7
2257 270p
L EXT1
B48
3250 4k7
2255 470n
2256 270p
R EXT1
B49
B50
B51
L IF
R IF
2252 10n
2253 10n
3253 150
3254 150
2261 2n2
2260 2n2
1001
9M50
7M50
8M50
TP32
2M50
10M51
TP32
9231
3208
8M51
TP31
9226
3209
3M51
4M51
AGC
R OUT
L OUT
L IF
R IF
B41
B59
B60
B70
B50
B71
B51
B99
C100
D121
B56
RGB STATUS
RGB SHIFT
4860
3868 390k
9862
6861
PAL-ID
3865 47k
LL4148
4862
3261 15
3867 4k7
7860 BC848C
6V7
3866 33k
7861 BC848C
3863 22k
6860 BAS85
3864 2k2
0V7
1006
2860 10u
9860
RESERVED FOR DOLBY
TERR AUDIO L IN
TERR AUDIO R IN
AUDIO CONN. R
1X94
2X94
3X94
9E94
8E94
7E94
1E14
2E14
2E14
1E15
2E15
3E15
4E15
5E15
6E15
H
FROM/TO COMB FILTER
SEE ALSO C
C-COMB 5F28 1E28
Y-COMB 4F28 2E28
Y/CVBS 3F28 3E28
GND 2F28 4E28
5E28
1M21 1E21
2M21 2E21
B SCART 1 3M21 3E21
G/V SCART 1 4M21 4E21
R SCART 1 5M21 5E21
RGB STATUS 6M21 6E21
FBL SCART 1 7M21 7E21
CVBS SCART 1 8M21 8E21
EXT 2 9M21 9E21
L EXT 1 10M21 10E21
R EXT 1 11M21 11E21
L IF 12M21 12E21
R IF 13M21 13E21
+14 16M21 16E21
TERR CVBS 17M21 17E21
CHROMA OUT 18M21 18E21
FRAME 19M21 19E21
RESERVED 20M21 20E21
21M21 21E21
A33
711
B300
C55
D86
B56
4861
D224
1 2 3 4 5 6 7 8 9 10 11
A B C D E F G H I J K L M N O

IF/ZF/FI


IF MODULE
J :
K :
L :
M :
3M51
4M51
5M50
7M51
11M51
21M51
+8A
+14
1M51
9M51
12M51
13M51
13M50
6M50
12M50
4M50
11M50
10M50
3G19
4G19
5G19
6M51
5M51
9235
9663
9755
9756
R IF
CVBS IF
SCL3
SDA
SYS2(BI/L)
SYS1
AFC
EXT2
L HEADPHONE
R HEADPHONE
R-EXT
L-EXT
B50
B71
B51
B46
B300
B61
A9
A3
A17
A16
B21
A38
A34
B112
B110
B111
B103
B104
MUTE 2
N
FROM/TO 3RD SCART PANEL
TERR AUDIO L IN
TERR AUDIO R IN
AUDIO CONN. R
AUDIO CONN. L
+9V
TERR CVBS
GND
CVBS CONN
NC
1X94
2X94
3X94
4X94
5X94
6X94
7X94
8X94
9X94
9E94
8E94
7E94
6E94
5E94
4E94
3E94
2E94
1E94
B104
B103
2258 470n
2259 470n
L-EXT
R-EXT
14M21
5M21
14E21 3V8
15E21 3V8
1E18
1M18
NIL
D68
2E18
2M18
-16
3E18
3M18
CVBS STATUS 2
A30
4E18
4M18
SVHS DETECT
A35
5E18
5M18
+16
6E18
6M18
SCL
A10
7E18
7M18
9344
9345
8E18
8M18
G TXT
C308
9E18
9M18
R TXT
C309
10E18
10M18
FBL TXT
C310
11E18
11M18
4365(RESERVED FOR DOLBY)
A18
12E18
12M18
B TXT
C312
13E18
13M18
+8
14E18
14M18
SDA
A5
15E18
15M18
PROCES
16E18
16M18
CVBS/LUM-OUT
D120
17E18
17M18
B OUT
C317
18E18
18M18
R OUT
C318
19E18
19M18
G/V OUT
C319
20E18
20M18
RGB STATUS
C320
21E18
21M18
C321
EURO MODULE
F
Source selection
Quellenwahl
Selection de source
1060
FONT CONNECTIONS MODULE/3B
3E27 0V
C-FC
5K27
2E27
6K27
1E27 0V
Y-FC/ CVBS-FC
7K27
4E27
4K27
5E27 0V
SNDR-FC
3K27
6E27
2K27
7E27 0V
SNDL-FC
1K27
SVHS
CVBS
R
L
3200 1k
2200 100p
6200 BZX79
6201 BZX79
3202 1k
2203 100p
6202 BZX79
6203 BZX79
2240
RES
9200
+14
2246 22u
0V7
150mV
3231 4k7
7244 BC858C
6245 LL4148
3230 22k
R OUT
B59
3200 22k
0V1
7200 BC858C
0V
5k6
320
2
B61
+16A
3203 10k
3204 100
0V
6204 IN4148
3205 22k
0V1
7202 BC858C
0V7
7201 BC858C
L OUT
B60
5k6
320
1060
SEPERATE CONTROL-MODULE
B111
R
3M19
3246 220
3247 220
2233 22n
B110
L
2M19
3248 220
3249 220
2234 22n
B112
1M19
A+C+D
11
12
13
14
15
16
17
18
19
20
21
22



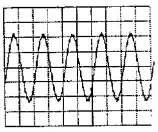
B
Audio amplification
Ton-verstärker
Amplification audio
DOLBY
PROTECT
D62
9222
9223
3228
150
8V3
0V
7243
BC858C
8V2
3224
2k2
+14
3225
2k7
2231
100u
3226
33k
3227
33k
2232
22n
+16B
3244
10k
3245
10k
6247
LLZ-C3V3
6246
LLZ-C3V3
-16B
3230
22k
2246
22u
4M84
4241
4240
6248
IN4148
+16B
8V2
7249
BC858C
0V
8V2
3223
10
4248
0V
7248
BC858C
3229
5k6
2248
330u
2249
22n
3242
56k
3243
56k
TP36
TP33
7240
TDA1521
3202
1k2
0V
2236
4n7
3201
5k6
7200
BC858C
9228
0V
2243
22n
3240
8R2
+16B
15V9
-15V9
6420
RES
-16B
TP34
3207
1k2
2238
4n7
7202
BC858C
2245
22n
TP35
3241
8R2
3206
5k6
9242
1M70
2M70
3M70
RES. FOR SUB WOOFER
1040
EXT. LS. MODULE
L
1M53
4L53
2M53
3L53
3M53
2L53
R
4M53
1L53
1L153
2L153
LEFT
3L153
4L153
RIGHT
1L170
2L170
3L170
SUB WOOFER
030
L
R
2200
22n
2201
22n
ROL-
3247
220
2233
22n
3249
220
2234
22n
9234
9233
9241
9239
9240
9001
9240
9253
9225
22
23
24
25
26
27
28
29
30

CHASSIS GR2.4

CL46532061/014.BPAR
181094

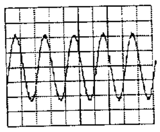
1000	C 1	3890	K 3
1001	A 8	4240	E26
1006	E10	4241	D26
1040	H27	4248	E27
1060	J20	4365	H *
1060	L16	4860	D 9
1240	A 4	4861	O 8
1242	B 4	4862	E 9
2001	C 1	5001	H 3
2002	E 4	5240	A 3
2003	H 3	5242	B 3
2004	D 4	6200	N17
2005	H 2	6201	N17
2008	G 4	6202	N17
2010	H 4	6203	N17
2200	L29	6204	G21
2200	N17	6245	E21
2201	L29	6246	E25
2203	N17	6247	D25
2230	G 1	6248	D27
2231	C28	6420	G25
2232	C29	6709	I 5
2233	L22	6860	E 7
2234	M22	6861	D10
2236	F23	7003	G 3
2237	A 5	7200	F22
2238	G23	7201	H21
2239	B 5	7202	G22
2240	A 5	7240	E24
2240	N16	7243	C29
2242	B 5	7244	D21
2243	F25	7248	E28
2245	G25	7249	D27
2246	D22	7850	J 2
2248	E27	7860	E 8
2249	E28	7861	E 9
2252	K 5	7886	M 2
2253	K 6	9001	N25
2254	N 4	9200	O16
2255	N 6	9222	B29
2256	N 6	9223	B29
2257	O 5	9225	O26
2258	D13	9226	B10
2259	D14	9227	C 6
2260	L 6	9228	F25
2261	L 5	9229	B 3
2718	I 5	9230	A 4
2853	J 4	9231	B 9
2854	N 2	9233	M26
2860	F 7	9234	M25
3001	C 2	9235	B13
3002	E 5	9239	N25
3003	G 2	9240	N26
3009	F 5	9240	N26
3010	G 5	9241	M26
3200	F21	9242	H26
3200	M17	9253	O25
3201	F23	9344	G16
3202	E23	9345	G17
3202	N17	9663	B15
3203	G21	9717	H 4
3204	G20	9755	B18
3205	G21	9756	B19
3206	H23	9853	I 3
3207	G23	9856	K 3
3208	B 9	9860	F 7
3209	B10	9862	D10
3220	B 4	9882	K 2
3222	H 1	9883	K 2
3223	E26	9884	L 2
3224	C27		
3225	C27		
3226	C28		
3227	D28		
3228	C29		
3229	E26		
3230	D22		
3231	D22		
3240	F25		
3241	H25		
3242	E25		
3243	E26		
3244	C24		
3245	D24		
3246	L22		
3247	L22		
3248	M22		
3249	M22		
3250	N 6		
3251	N 5		
3253	K 6		
3254	K 6		
3261	E 7		
3732	H 3		
3733	H 3		
3734	H 4		
3850	L 2		
3851	N 3		
3852	N 4		
3853	N 4		
3854	N 5		
3855	N 3		
3856	L 2		
3860	N 3		
3862	M 2		
3863	E 7		
3864	E 8		
3865	D 9		
3866	E 9		
3867	E 9		
3868	D10		
3872	M 2		
3886	J 1		
3887	I 3		
3888	L 5		
3889	J 3		

* TP31



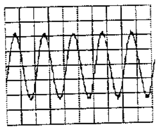
10mV/div AC
0.5ms div

* TP32



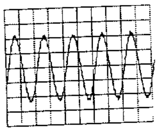
10mV/div AC
0.5ms div

* TP33



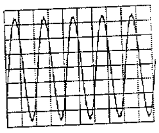
10mV/div AC
0.5ms div

* TP34



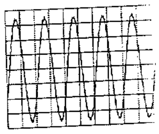
10mV/div AC
0.5ms div

* TP35



200mV/div AC
0.5ms div

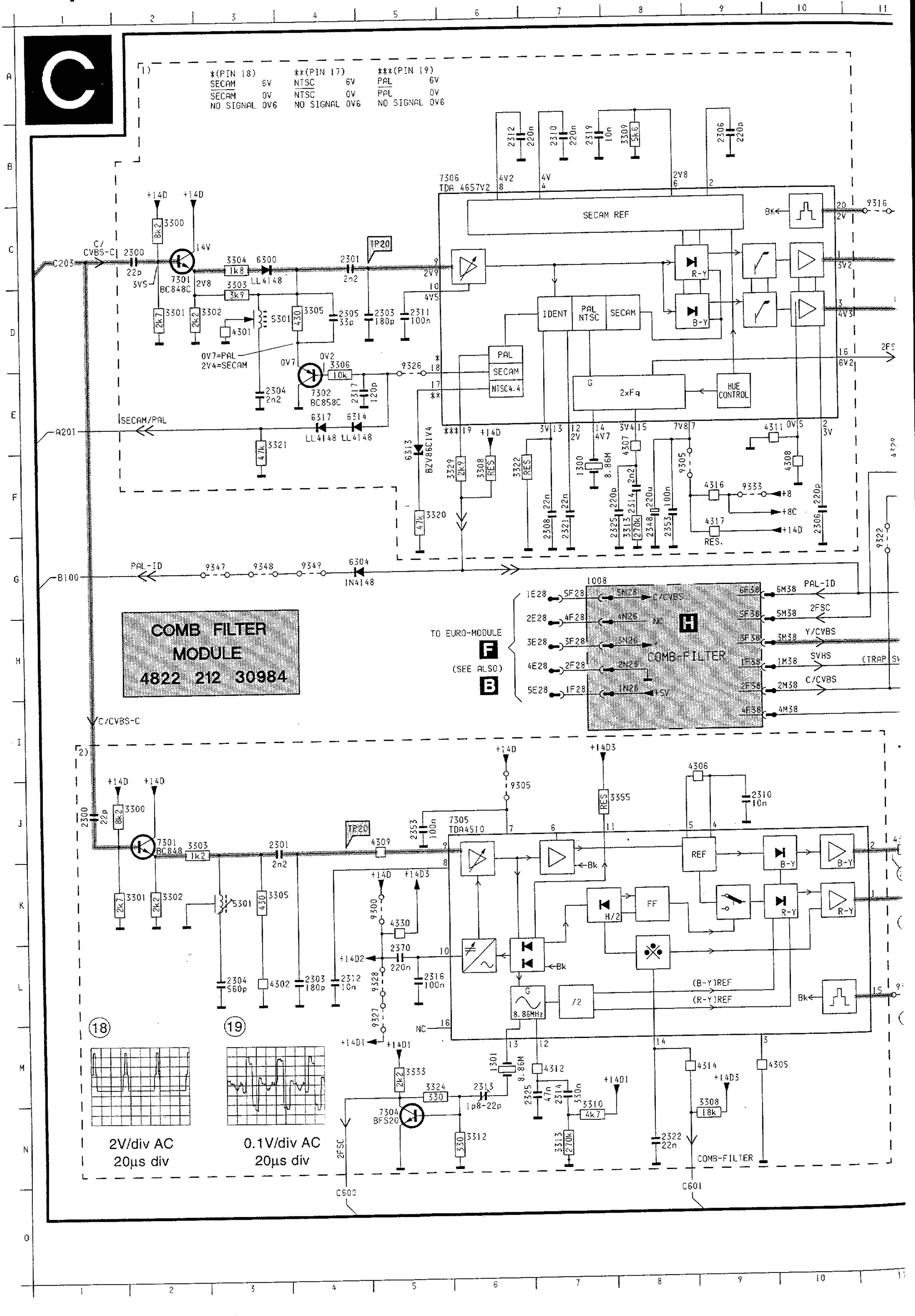
* TP36



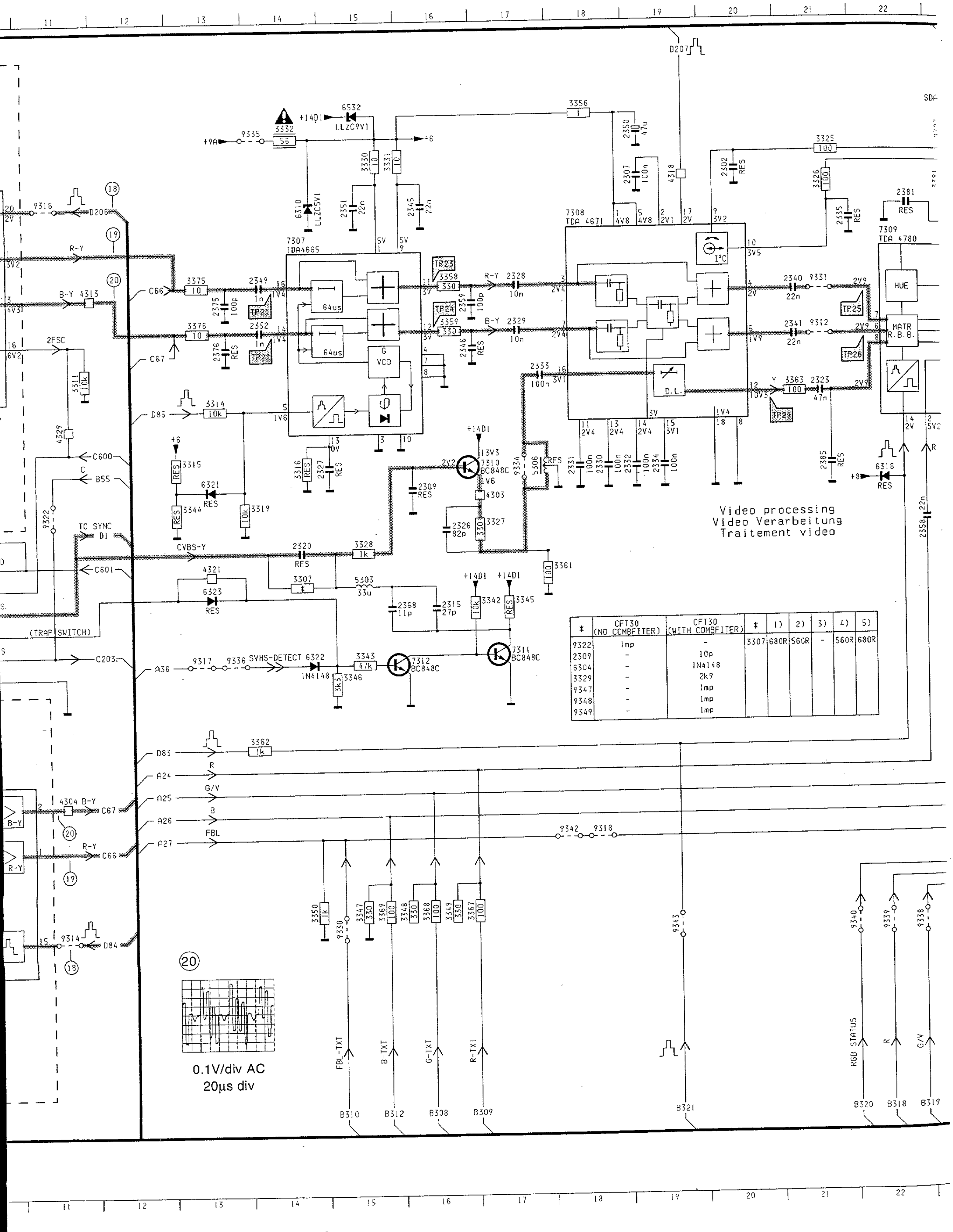
200mV/div AC
0.5ms div

* measured at ⊿ = 50%

Video processing/Video Verarbeitung/


C
*(PIN 18) SECAM 6V SECAM 0V NO SIGNAL 0V6
**(PIN 17) NTSC 6V NTSC 0V NO SIGNAL 0V6
***(PIN 19) PAL 6V PAL 0V NO SIGNAL 0V6
7306 TDA 4657V2
SECAM REF
IDENT
PAL NTSC
SECAM
R-Y
B-Y
PAL
SECAM
NTSC4.4
2xFq
HUE CONTROL
BK
9316
2FS
C203
C/ CVBS-C
2300 22p
3300 8k2
7301 BC848C
3301 2k7
3302 2k2
3304 1k8
6300 LL4148
3303 3k9
5301
4301
3305 430
2305 33p
2301 2n2
TP20
2303 180p
2311 100n
0V7=PAL 2V4=SECAM
7302 BC858C
3306 10k
2317 120p
9326
2304 2n2
SECAM/PAL
A201
6317 LL4148
6314 LL4148
3321 47k
6313 BZV86C1V4
3320 47k
3329 2k9
3308 RES
3322 RES
2308 22n
2321 22n
1300 8.86M
2325 220p
2314 2n2
3313 270k
2348 220u
2353 100n
4307
9305
4316
9333
+8
+8C
4317 RES.
+14D
4311
4308
2306 220p
9322
2312 220n
2310 220n
2319 10n
3309 5k6
2306 220p
B100
PAL-ID
9347
9348
9349
6304 1N4148
COMB FILTER MODULE 4822 212 30984
TO EURO-MODULE
F
(SEE ALSO)
B
1E28 5F28 5N28 C/CVBS
2E28 4F28 4N26 NC
3E28 3F28 3N26
4E28 2F28 2N26
5E28 1F28 1N28 +5V
1008
H
COMB-FILTER
6F38 6M38 PAL-ID
5F38 5M38 2FSC
3F38 3M38 Y/CVBS
1F38 1M38 SVHS (TRAP SW
2F38 2M38 C/CVBS
4F38 4M38
C/CVBS-C
7305 TDA4510
+14D3
3355 RES
4306
2310 10n
REF
Bk
H/2
FF
(B-Y)REF
(R-Y)REF
8.86MHz
/2
NC
4309
2353 100n
3303 1k2
7301 BC848
2301 2n2
2304 560p
4302
2303 180p
2312 10n
+14D2
2370 220n
2316 100n
9300
4330
9328
9327
+14D1
3333 2k2
3324 330
2313 1p8-22p
7304 BF520
3312 330
1301 8.86M
4312
2325 47n
2314 330n
3310 4k7
3313 270k
4314
3308 18k
+14D3
4305
2322 22n
COMB-FILTER
2FSC
C600
C601
18
19
2V/div AC 20μs div
0.1V/div AC 20μs div

Traitement video

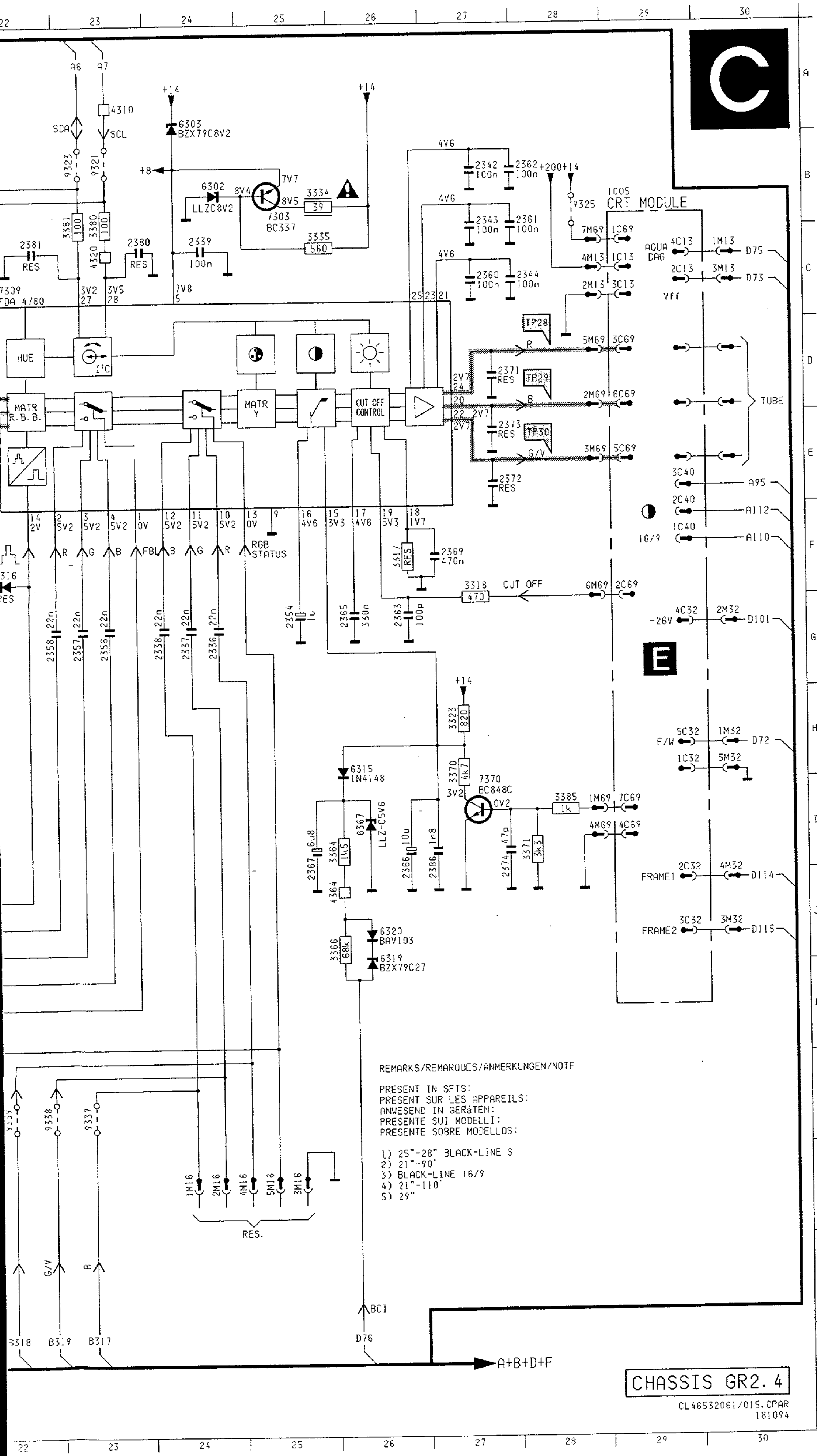

11
12
13
14
15
16
17
18
19
20
21
22
D207
SDA
3356
1
2350
47u
6532
+14D1
LLZC9V1
9335
3332
56
+9A
+6
3330
10
3331
10
3325
100
3326
100
4318
2302
RES
2307
100n
6310
LLZC5V1
2351
22n
2345
22n
2381
RES
2335
RES
7308
TDA 4671
7307
TDA4665
7309
TDA 4780
I²C
HUE
MATR R.B.B.
D.L.
VCO
64us
D206
R-Y
B-Y
4313
C66
C67
3375
10
3376
10
2349
1n
2352
1n
2375
100p
2376
RES
TP21
TP22
TP23
TP24
TP25
TP26
TP27
3358
330
3359
330
2359
100p
2346
RES
2328
10n
2329
10n
2340
22n
2341
22n
9331
9312
2333
100n
3363
100
2323
47n
2385
RES
2FSC
3311
10k
4329
D85
3314
10k
C600
B55
C601
C203
3315
RES
3344
RES
6321
RES
3319
10k
3316
RES
2327
RES
+14D1
7310
BC848C
2309
RES
4303
2326
82p
3327
330
9334
5306
RES
2331
100n
2330
100n
2332
100n
2334
100n
6316
RES
+8
2358
22n
9322
TO SYNC
D1
CVBS-Y
2320
RES
3328
1k
3361
100
4321
6323
RES
3307
5303
33u
2368
11p
2315
27p
3342
10k
3345
RES
7311
BC848C
7312
BC848C
(TRAP SWITCH)
A36
9317
9336
SVHS-DETECT
6322
1N4148
3343
47k
3346
3k3
D83
3362
1k
A24
R
A25
G/V
A26
B
A27
FBL
4304
C67
C66
9314
D84
9342
9318
3350
1k
9330
3347
330
3369
100
3348
330
3368
100
3349
330
3367
100
9343
9340
9339
9338
FBL-TXT
B-TXT
G-TXT
R-TXT
RGB STATUS
B310
B312
B308
B309
B321
B320
B318
B319
Video processing
Video Verarbeitung
Traitement video

*	CFT30 (NO COMBFITER)	CFT30 (WITH COMBFITER)
9322	lmp	-
2309	-	10p
6304	-	1N4148
3329	-	2k9
9347	-	lmp
9348	-	lmp
9349	-	lmp

*	1)	2)	3)	4)	5)
3307	680R	560R	-	560R	680R

⑳

0.1V/div AC
20µs div


C
CRT MODULE
1005
TUBE
AQUA DAG
Vff
HUE
MATR R.B.B.
MATR Y
CUT OFF CONTROL
I²C
TDA 4780
7309
TP28
TP29
TP30
R
B
G/V
CUT OFF
RGB STATUS
16/9
E/W
FRAME1
FRAME2
E
7370 BC848C
7303 BC337
6303 BZX79C8V2
6302 LLZC8V2
6315 1N4148
6367 LLZ-C5V6
6320 BAV103
6319 BZX79C27
RES.
BCI
D76
A+B+D+F
D75
D73
D101
D72
D114
D115
A95
A112
A110
SDA
SCL
+14
+8
+200
-26V
B318
B319
B317

REMARKS/REMARQUES/ANMERKUNGEN/NOTE

PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERäTEN:
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:

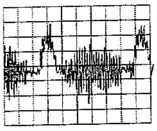
1) 25"-28" BLACK-LINE S
2) 21"-90°
3) BLACK-LINE 16/9
4) 21"-110°
5) 29"

CHASSIS GR2. 4

CL46532061/015.CPAR
181094

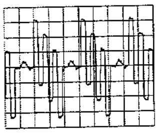
1005	B29	3319	G14	9328	L 5
1008	G 7	3320	F 5	9330	L15
1300	F 7	3321	E 3	9331	D21
1301	M 6	3322	F 6	9333	F 9
2300	C 2	3323	H27	9334	F17
2300	J 1	3324	M 5	9335	B14
2301	C 4	3325	B21	9336	I13
2301	J 3	3326	B21	9337	L23
2302	B20	3327	G17	9338	L22
2303	D 5	3328	G15	9339	L22
2303	L 4	3329	F 6	9340	L21
2304	E 3	3330	B15	9342	K18
2304	L 3	3331	B15	9343	L19
2305	D 4	3332	B14	9347	G 3
2306	B 9	3333	M 5	9348	G 3
2306	F10	3334	B25	9349	G 4
2307	B19	3335	C25		
2308	F 7	3342	H17		
2309	F16	3343	I15		
2310	B 7	3344	G13		
2310	J 9	3345	H17		
2311	D 5	3346	I15		
2312	B 6	3347	L15		
2312	L 4	3348	L16		
2313	M 6	3349	L16		
2314	F 8	3350	L14		
2314	M 7	3355	J 7		
2315	H16	3356	A18		
2316	L 5	3358	D16		
2317	E 4	3359	D16		
2319	B 7	3361	G18		
2320	G14	3362	J14		
2321	F 7	3363	E21		
2322	N 8	3364	I26		
2323	E21	3366	J26		
2325	F 8	3367	L16		
2325	M 6	3368	L16		
2326	G16	3369	L15		
2327	F15	3370	H27		
2328	D17	3371	I28		
2329	D17	3375	D13		
2330	F18	3376	D13		
2331	F18	3380	B23		
2332	F19	3381	B23		
2333	E17	3385	I28		
2334	F19	4301	D 3		
2335	C21	4302	L 3		
2336	G24	4303	F17		
2337	G24	4304	J11		
2338	G24	4305	M 9		
2339	C24	4306	I 9		
2340	D21	4307	F 8		
2341	D21	4308	F10		
2342	B27	4309	J 5		
2343	B27	4310	A23		
2344	C28	4311	E10		
2345	C16	4312	M 7		
2346	E16	4313	D11		
2348	F 8	4314	M 8		
2349	D14	4316	F 9		
2350	B19	4317	F 9		
2351	C15	4318	B19		
2352	D14	4320	C23		
2353	F 8	4321	G13		
2353	J 5	4329	F11		
2354	G25	4330	K 5		
2356	G23	4364	J26		
2357	G23	5301	D 3		
2358	G22	5301	K 3		
2359	D16	5303	H15		
2360	C27	5306	F17		
2361	B28	6300	C 3		
2362	B28	6302	B24		
2363	G26	6303	A24		
2365	G26	6304	G 4		
2366	I26	6310	C14		
2367	I25	6313	F 5		
2368	H15	6314	E 4		
2369	F27	6315	H26		
2370	L 5	6316	F22		
2371	D27	6317	E 4		
2372	E27	6319	J26		
2373	E27	6320	J26		
2374	I27	6321	F13		
2375	D13	6322	I14		
2376	E13	6323	H13		
2380	C23	6367	I26		
2381	C22	6532	A15		
2385	F21	7301	C 2		
2386	I27	7301	J 2		
3300	C 2	7302	E 4		
3300	J 2	7303	B25		
3301	D 2	7304	N 5		
3301	K 2	7305	J 5		
3302	D 3	7306	B 5		
3302	K 2	7307	C14		
3303	D 3	7308	C18		
3303	J 2	7309	C22		
3304	C 3	7310	F17		
3305	D 4	7311	I17		
3305	K 3	7312	I16		
3306	E 4	7370	I27		
3307	H14	9300	K 5		
3308	F 6	9305	F 8		
3308	N 9	9305	J 6		
3309	B 8	9312	D21		
3310	N 7	9314	L11		
3311	E11	9316	C11		
3312	N 6	9317	I13		
3313	G 8	9318	K18		
3313	N 7	9321	B23		
3314	E13	9322	G11		
3315	F13	9323	B23		
3316	F14	9325	B28		
3317	F26	9326	E 5		
3318	F27	9327	L 5		

TP20



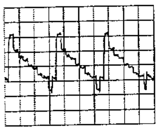
20mV/div AC
10µs div

TP26



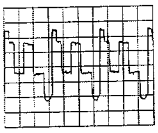
0.2V/div AC
20µs div

TP27



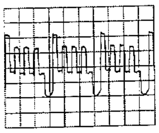
0.1V/div AC
20µs div

TP28



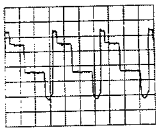
0.5V/div AC
20µs div

TP29



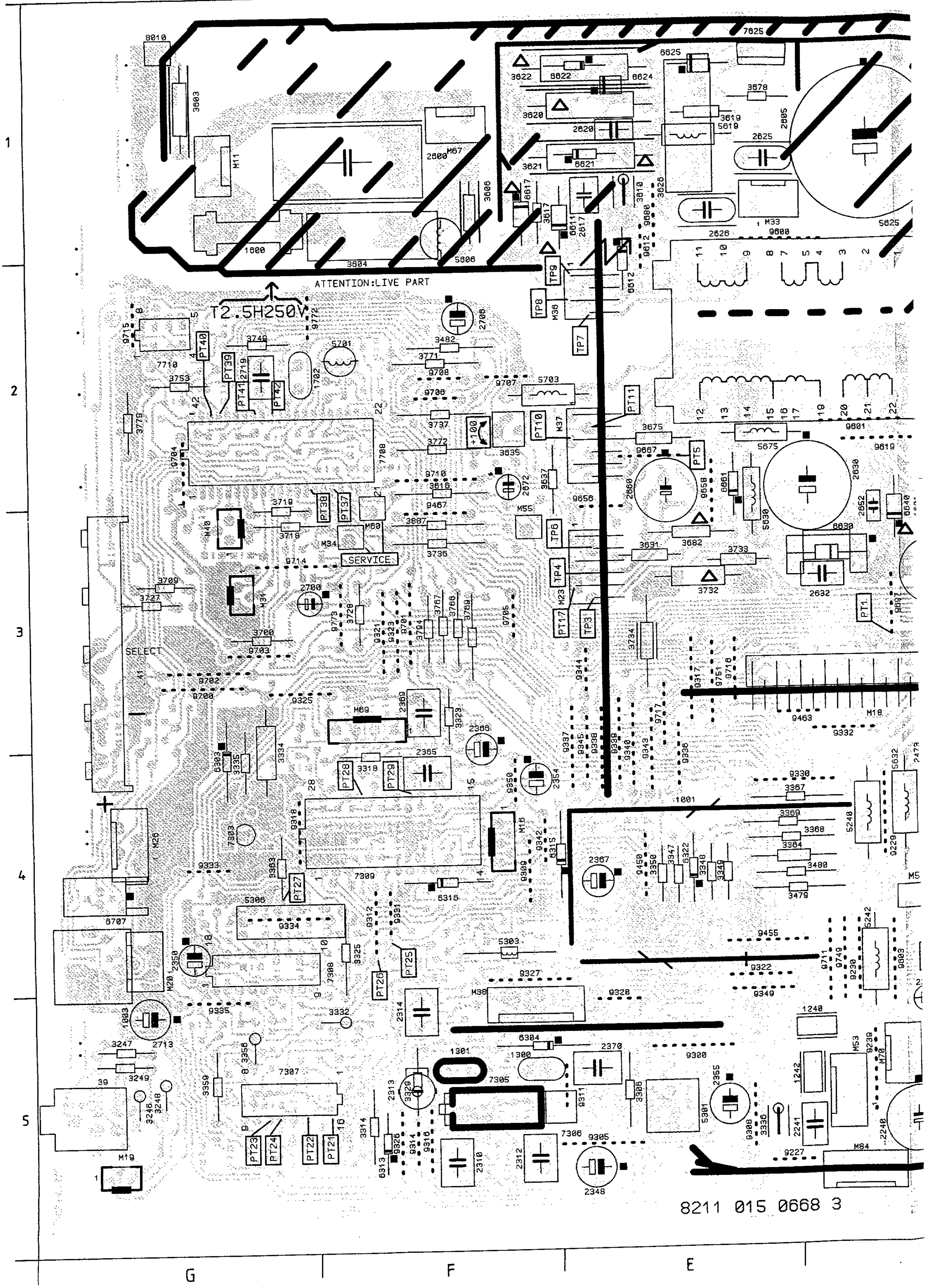
0.5V/div AC
20µs div

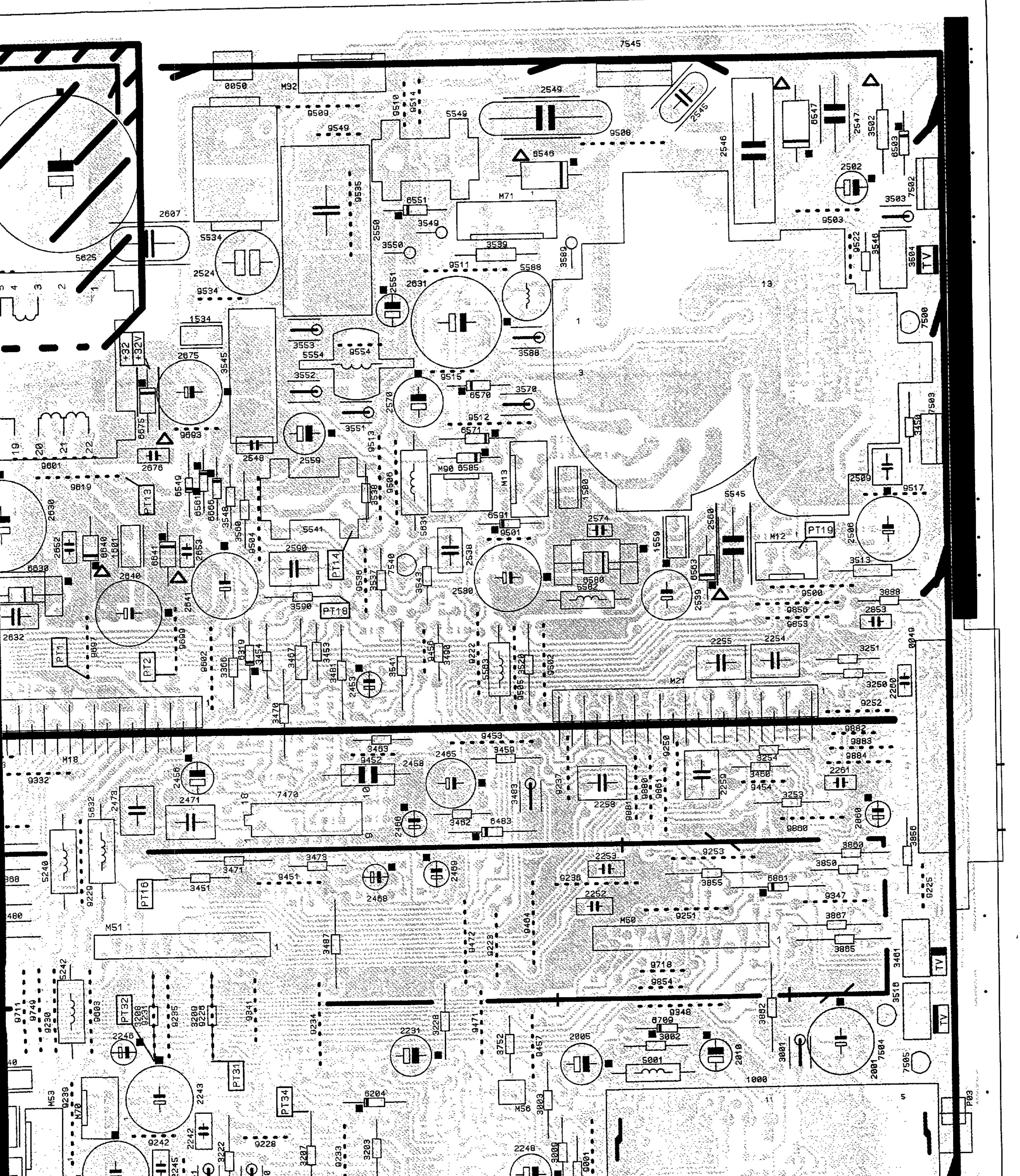
TP30

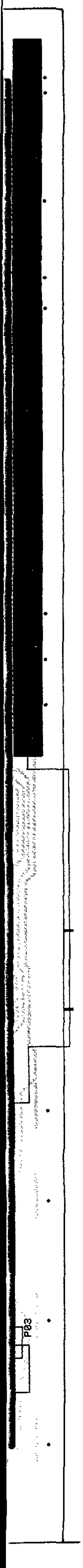


0.5V/div AC
20µs div

Mono carrier / Hauptplatine / Châssis


1
2
3
4
5
G
F
E
ATTENTION:LIVE PART
T2.5H250V
SERVICE
SELECT
+100
9010
3603
M11
2600
M67
1600
3604
5806
3606
7625
6625
3622
6622
6624
3620
2620
3621
6621
6617
3617
6611
2617
3610
9600
3626
3678
3619
5619
2805
2625
2626
M33
9600
5625
TP9
TP8
M36
TP7
6612
9612
9715
7710
3753
PT40
PT39
PT41
2719
PT42
3749
5701
1702
9772
2700
3482
3771
9708
9707
5703
9706
3737
3772
3779
9704
7708
3835
PT10
M37
PT11
3675
9667
PT5
5675
9601
9619
9710
3616
9467
2672
3637
M55
9656
2660
9658
6661
5630
2630
2652
6640
3719
3718
PT38
PT37
M40
M60
M34
3887
3736
TP6
3631
3682
6630
3733
2632
9714
3709
3727
M31
2700
9773
3728
9321
9323
9701
3794
3767
3768
3789
9705
TR4
M23
PT17
TP3
3732
3734
PT1
3700
9703
9702
9700
9344
9317
9761
9716
9463
M18
9332
9325
M69
2369
3323
2366
9337
9345
9338
9339
9340
9343
9717
9336
6303
9335
3334
PT28
3318
2365
PT29
9350
2354
9330
3367
5240
5632
1001
M26
7303
9318
7309
M16
9342
6315
9309
2367
9450
3350
3347
6322
3348
3349
3369
3368
3364
3480
3479
9229
9333
3363
PT27
6316
6707
5306
9334
9312
9331
9455
5242
2350
M20
7308
3325
PT26
PT25
5303
9327
9322
9349
9230
9749
9711
9603
1003
9335
3332
2314
M38
9328
1240
3247
2713
3356
6304
2370
9300
M53
9239
M70
3249
1301
1300
3246
3248
3359
7307
2313
3329
7305
9311
3306
2355
5301
9308
3336
1242
2241
2240
3314
3326
9314
9310
6313
2310
2312
7306
9305
2348
9227
M84
PT23
PT24
PT22
PT21
M19
8211 015 0668 3


M32
M71
TV
1534
+32
+32V
M90
M13
1580
PT13
1559
M12
PT19
1601
PT14
PT18
PT1
PT2
M21
M18
2060
PT16
M51
M50
PT32
2005
2010
2001
PT31
M53
M70
PT34
M56
P03
P01
M84
P02
PT35
PT36
PT33
3111 253 3197 3
D
C
B
A

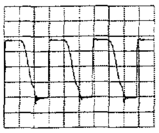


0049	A3	3323	F3	5582	B3	9345	E4
0050	C1	3325	F4	5588	B2	9347	A4
1000	A5	3329	F5	5606	F1	9348	B4
1003	G4	3332	F5	5619	E1	9349	E5
1240	D5	3334	G4	5625	D2	9350	F4
1242	D5	3335	G4	5630	E3	9450	E4
1300	F5	3336	E5	5631	C2	9451	C4
1301	F5	3347	E4	5632	D4	9452	C3
1534	D2	3348	E4	5675	E2	9453	B3
1559	B3	3349	E4	5701	F2	9454	A4
1580	B2	3350	E4	5703	E2	9455	E4
1600	G1	3356	G5	6204	C5	9456	C3
1601	D3	3359	G5	6303	G4	9457	B5
1702	G2	3363	G4	6304	F5	9463	D3
2001	A5	3364	D4	6313	F5	9464	B4
2005	B5	3366	C3	6315	E4	9467	F3
2010	B5	3367	D4	6316	F4	9471	C5
2231	C5	3368	E4	6319	C3	9472	C4
2240	D5	3369	E4	6322	E4	9500	A3
2241	D5	3450	A2	6483	B4	9501	B3
2242	D5	3451	D4	6503	A1	9502	B3
2243	D5	3453	C3	6546	B1	9503	A1
2245	D5	3454	C3	6547	A1	9504	C2
2246	D5	3459	B3	6549	D2	9505	B3
2248	B5	3460	A3	6551	C1	9506	C2
2252	B4	3461	A4	6561	D2	9508	B1
2253	B4	3462	C4	6563	B3	9509	C1
2254	A3	3463	C3	6570	B2	9510	C1
2255	B3	3467	C3	6571	B2	9511	C1
2258	B4	3470	C3	6580	B3	9512	B2
2259	B4	3471	C4	6585	C2	9513	C2
2260	A3	3473	C4	6591	B2	9514	C1
2261	A4	3479	D4	6611	E1	9515	C2
2310	F5	3480	D4	6612	E2	9517	A2
2312	F5	3481	C3	6617	F1	9522	A1
2313	F5	3482	F2	6621	E1	9534	D2
2314	F5	3483	B4	6622	E1	9535	C1
2348	E5	3487	C4	6624	E1	9536	C3
2350	G4	3490	C3	6625	E1	9549	C1
2354	F4	3502	A1	6630	D3	9554	C2
2355	E5	3503	A1	6640	D3	9600	E1
2365	F4	3504	A1	6641	D3	9601	D2
2366	F4	3513	A3	6661	E2	9602	D3
2367	E4	3516	A4	6666	D2	9603	D4
2369	F3	3520	B3	6675	D2	9612	E1
2370	E5	3537	C3	6707	G4	9619	D2
2453	C3	3538	C2	6709	B5	9656	E3
2456	D4	3539	B1	6861	A4	9658	E2
2458	C4	3541	C3	7240	C5	9667	E2
2465	C4	3543	C3	7303	G4	9680	E1
2466	C4	3545	C2	7305	F5	9693	D2
2468	C4	3546	A1	7306	F5	9697	D3
2469	C4	3548	C2	7307	F5	9699	D3
2471	D4	3549	C1	7308	G5	9700	G3
2473	D4	3550	C1	7309	F4	9701	F3
2502	A1	3551	C2	7470	C4	9702	G3
2506	A3	3552	C2	7500	A2	9703	G3
2509	A2	3553	C2	7502	A1	9704	G2
2524	C1	3560	C2	7503	A2	9705	F3
2538	C3	3570	B2	7504	A5	9706	F2
2539	B3	3588	B2	7505	A5	9707	F2
2545	B1	3589	B1	7540	C3	9708	F2
2546	A1	3590	C3	7545	B1	9710	F2
2547	A1	3603	G1	7625	E1	9711	D4
2548	C2	3604	F1	7708	G2	9714	G3
2549	B1	3606	F1	7710	G2	9715	G2
2550	C1	3610	E1	8010	G1	9716	E3
2551	C2	3616	F2	9001	B5	9717	E3
2559	C2	3617	F1	9222	C3	9718	B4
2560	A3	3619	E1	9223	B4	9749	D4
2570	C2	3620	E1	9225	A4	9751	E3
2574	B3	3621	E1	9226	D4	9772	F2
2580	B3	3622	E1	9227	E5	9773	F3
2590	C3	3626	E1	9228	C5	9853	A3
2600	F1	3631	E3	9229	D4	9854	B4
2605	D1	3635	F2	9230	D4	9856	A3
2607	D1	3637	E2	9231	D4	9860	A4
2617	E1	3675	E2	9233	C5	9861	B4
2620	E1	3678	E1	9234	C5	9880	B4
2625	E1	3682	E3	9235	D4	9881	B4
2626	E1	3700	G3	9236	B4	9882	A3
2630	D3	3709	G3	9237	B3	9883	A3
2631	C2	3718	G3	9239	D5	9884	A3
2632	D3	3719	G3	9240	D5	M11	G1
2640	D3	3727	G3	9241	C5	M12	A3
2641	D3	3728	F3	9242	D5	M13	B2
2652	D3	3732	E3	9250	B3	M16	F4
2653	D3	3733	E3	9251	B4	M18	D3
2660	E3	3734	E3	9252	A3	M19	G5
2672	F2	3736	F3	9253	B4	M20	G4
2675	D2	3737	F2	9300	E5	M21	B3
2676	D2	3749	G2	9305	E5	M23	E3
2700	F3	3752	B5	9308	E5	M26	G4
2706	F2	3753	G2	9309	F4	M31	G3
2713	G5	3766	F3	9311	E5	M32	C1
2719	G2	3767	F3	9312	F4	M33	E1
2853	A3	3769	F3	9314	F5	M34	F3
2860	A4	3771	F2	9316	F5	M36	E2
3001	A5	3772	F2	9317	E3	M37	E2
3002	B5	3779	G2	9318	G4	M38	E5
3003	B5	3794	F3	9321	F3	M40	G3
3009	B5	3850	A4	9322	E4	M50	B4
3010	B5	3855	B4	9323	F3	M51	D4
3203	C5	3856	A4	9325	G3	M53	D5
3207	C5	3860	A4	9326	F5	M55	F3
3208	D4	3862	A4	9327	F4	M56	B5
3209	D4	3865	A4	9328	E5	M60	F3
3222	D5	3867	A4	9330	D4	M67	F1
3228	C4	3887	F3	9331	F4	M69	F3
3240	C5	3888	A3	9332	D3	M70	D5
3241	D5	5001	B5	9333	G4	M71	B1
3246	G5	5240	D4	9334	G4	M84	D5
3247	G5	5242	D4	9335	G5	M90	C2
3248	G5	5301	E5	9336	E4	P01	B5
3249	G5	5303	F4	9337	E4	P02	D5
3250	A3	5306	G4	9338	E4	P03	A5
3251	A3	5534	D1	9339	E4		
3253	A4	5541	C2	9340	E4		
3254	A3	5545	B2	9341	C4		
3306	E5	5549	C1	9342	F4		
3314	F5	5554	C2	9343	E4		
3318	F4	5563	B3	9344	E3		

TP1 = DC 15V9

TP2 = DC -15V9

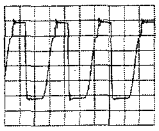
TP3



20V/div AC
5µs div

TP4 = DC 9V7

TP5

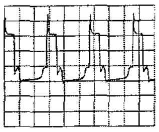


5V/div AC
5µs div

TP6 = DC 4V8

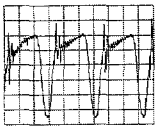
TP7 = DC 298V

TP8



2V/div AC
5µs div

TP9



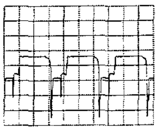
0.2V/div AC
5µs div

TP10 = DC 2V4

TP11 = DC 0V

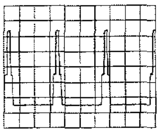
TP12 = DC 2V7

TP14



2V/div AC
20µs div

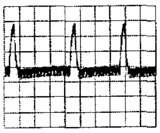
TP16



2V/div AC
20µs div

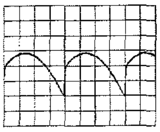
TP17 = DC 0V

TP18



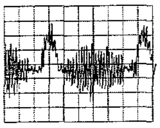
2V/div AC
5ms div

TP19



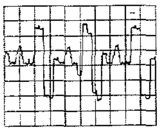
1V/div AC
5ms div

TP20



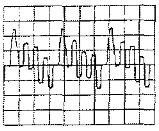
20mV/div AC
10µs div

TP21



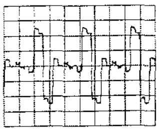
0.1V/div AC
20µs div

TP22



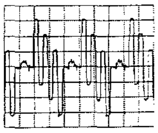
0.2V/div AC
20µs div

TP23



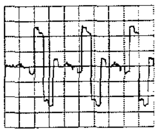
0.2V/div AC
20µs div

TP24



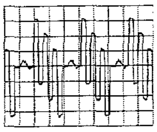
0.2V/div AC
20µs div

TP25



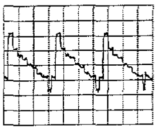
0.2V/div AC
20µs div

TP26



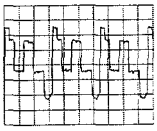
0.2V/div AC
20µs div

TP27



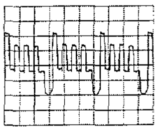
0.1V/div AC
20µs div

TP28



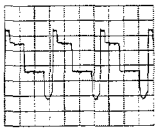
0.5V/div AC
20µs div

TP29



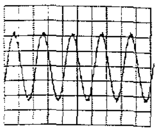
0.5V/div AC
20µs div

TP30



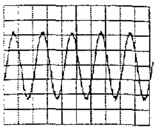
0.5V/div AC
20µs div

TP31



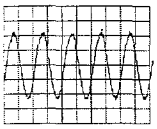
10mV/div AC
0.5ms div

TP32



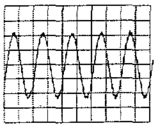
10mV/div AC
0.5ms div

TP33



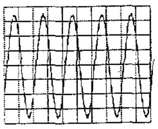
10mV/div AC
0.5ms div

TP34



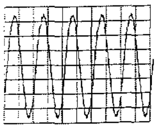
10mV/div AC
0.5ms div

TP35



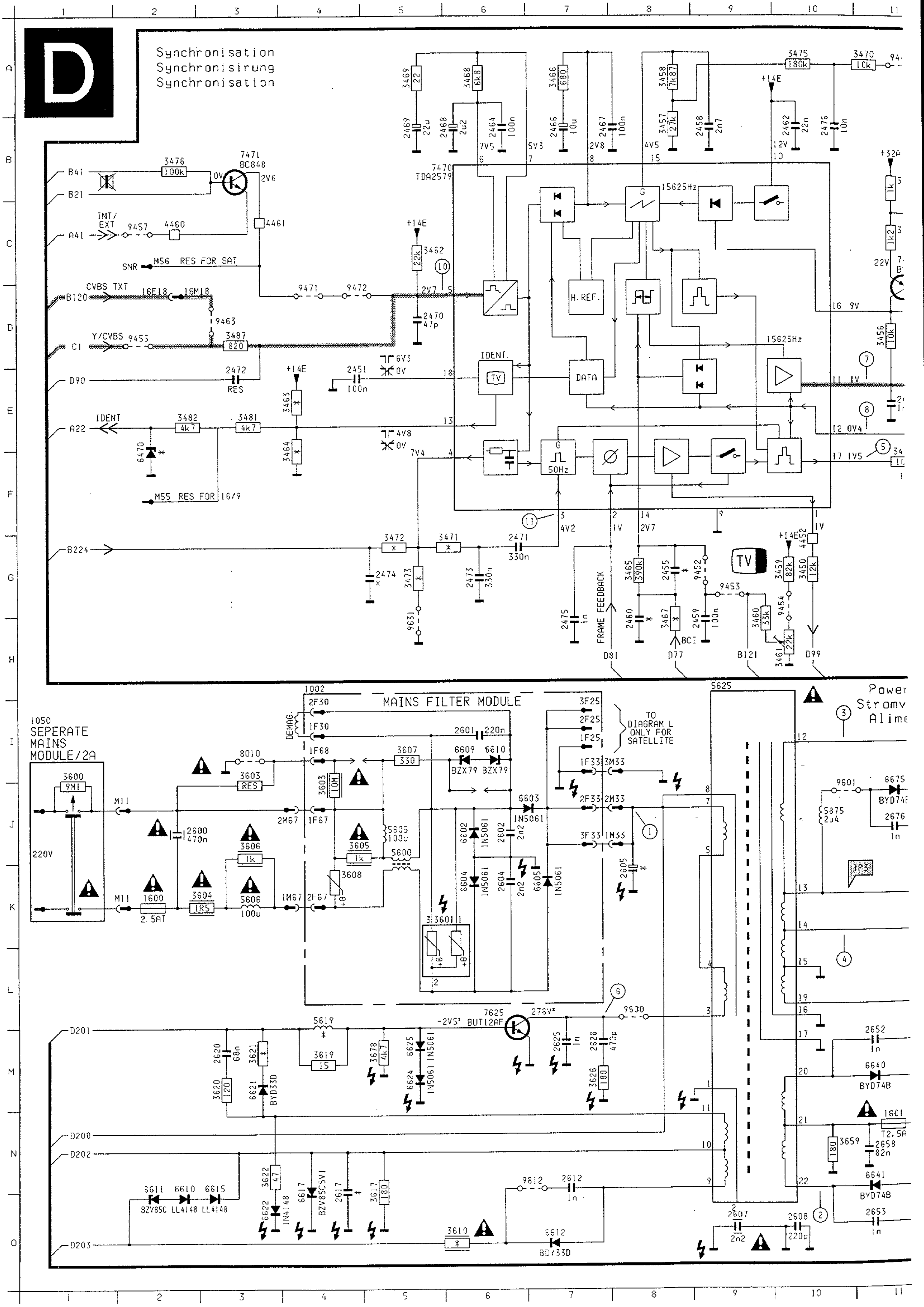
200mV/div AC
0.5ms div

TP36

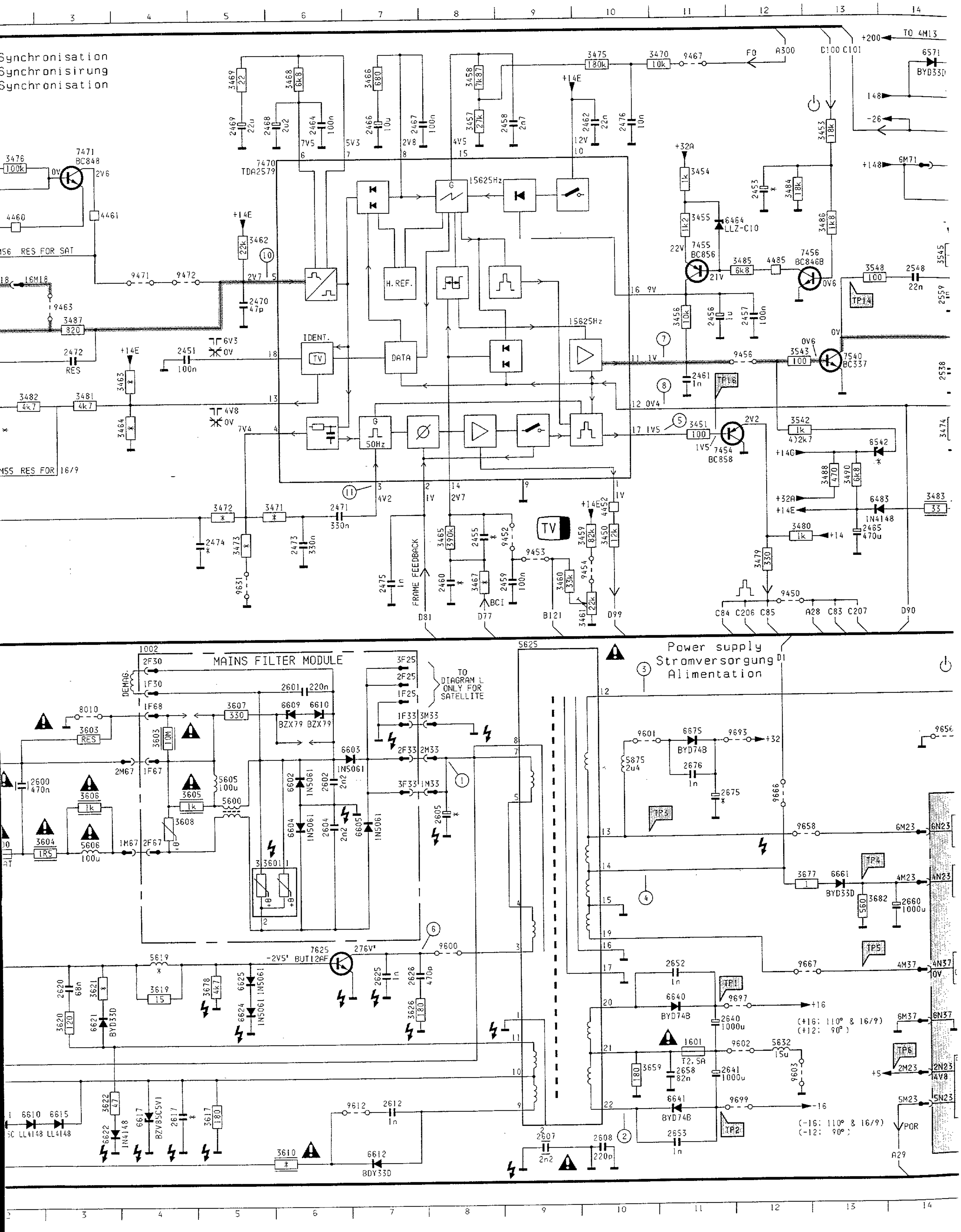


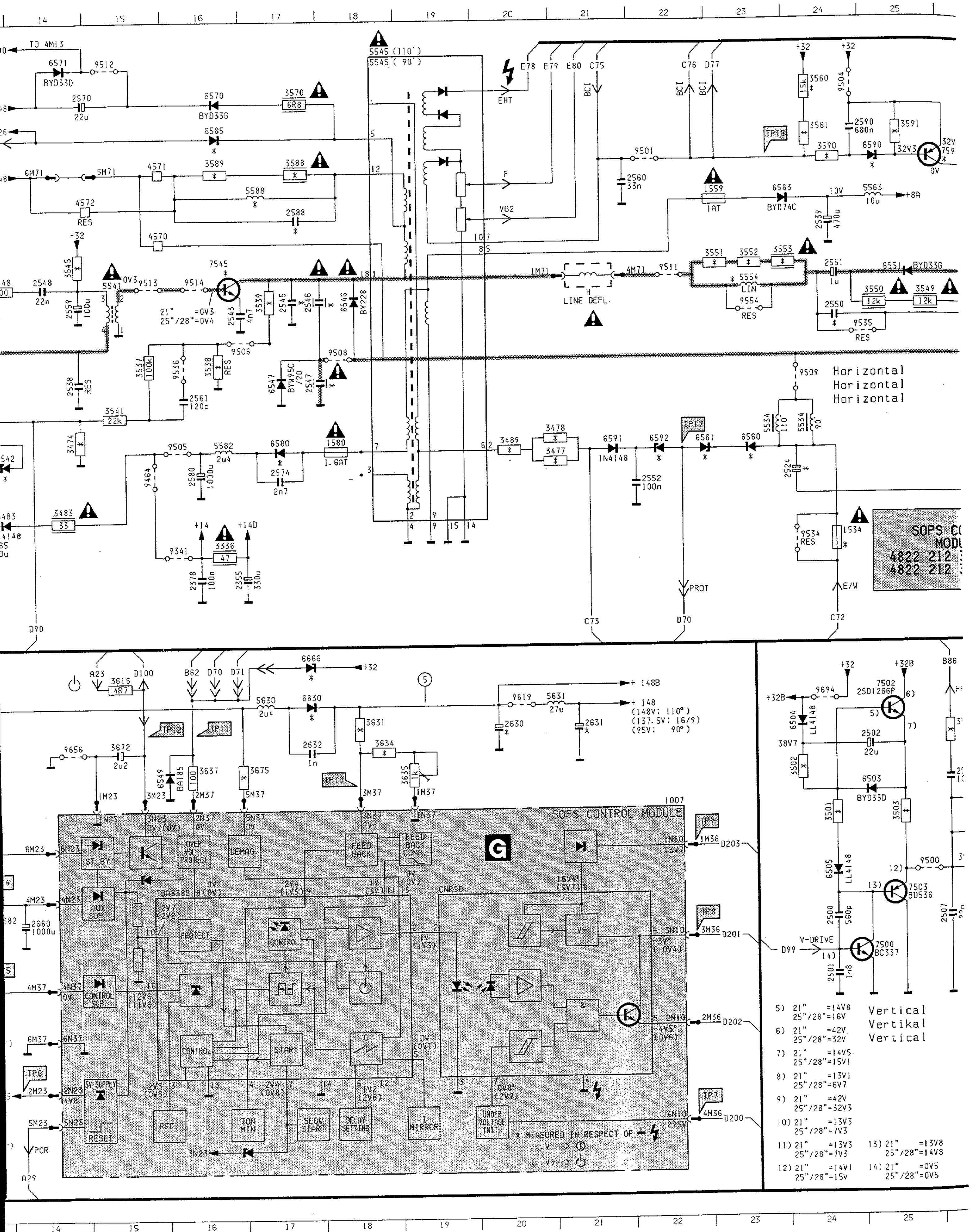
200mV/div AC
0.5ms div

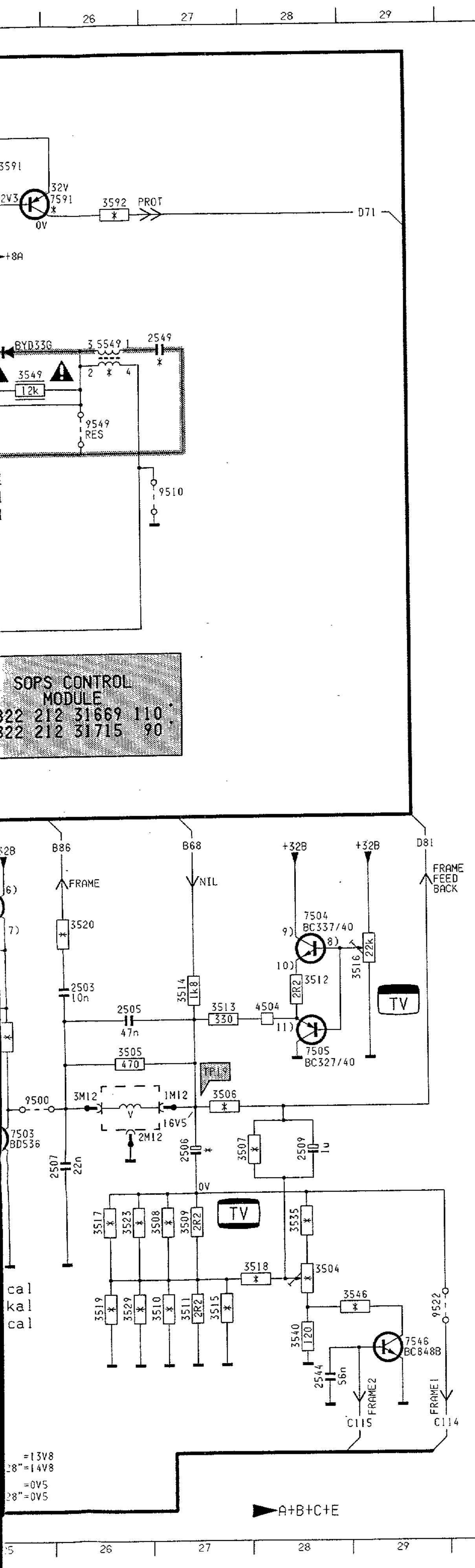
Power supply/Stromversorgung/Alimentation


D
Synchronisation
Synchronisierung
Synchronisation
B41
B21
A41
INT/ EXT
9457
4460
SNR
M56 RES FOR SAT
CVBS TXT
B120
16E18
16M18
9463
Y/CVBS
9455
C1
3487 820
D90
2472 RES
A22
IDENT
3482 4k7
3481 4k7
6470
M55 RES FOR 16/9
B224
3472
3471
2474
3473
9631
2473 330n
2471 330n
3476 100k
7471 BC848
0V
2V6
4461
9471
9472
+14E
3462 22k
2V7
2470 47p
2451 100n
6V3
0V
4V8
7V4
3463
3464
3469 22
2469 22u
3468 6k8
2468 2u2
2464 100n
3466 680
2466 10u
2467 100n
3458 7k87
3457 27k
2458 2n7
3475 180k
3470 10k
2462 22n
2476 10n
7V5
5V3
2V8
4V5
12V
7470 TDA2579
15625Hz
H. REF.
IDENT.
DATA
50Hz
16 9V
11 1V
12 0V4
17 1V5
4V2
1V
2V7
+32A
1k
1k2
22V
3456 10k
FRAME FEEDBACK
2475 1n
3465 390k
2455
2460
3467
BCI
2459 100n
9452
9453
3460 33k
9454
3461 22k
3459 82k
3450 12k
4452
D81
D77
B121
D99
1050 SEPERATE MAINS MODULE/2A
3600 9M1
220V
M11
1600 2.5AT
8010
3603 RES
2600 470n
3606 1k
3604 1R5
5606 100u
1002
MAINS FILTER MODULE
DEMAG.
2F30
1F30
1F68
2M67
1F67
1M67
2F67
3603 10M
3605 1k
5605 100u
5600
3608
3607 330
6609 BZX79
6610 BZX79
2601 220n
3F25
2F25
1F25
TO DIAGRAM L ONLY FOR SATELLITE
1F33
3M33
2F33
2M33
3F33
1M33
6603 1N5061
6602 1N5061
2602 2n2
6604 1N5061
2604 2n2
6605 1N5061
3601
2605
5625
Power
Stromv
Alime
9601
6675 BYD74
5875 2u4
2676 1n
IP3
D201
2620 68n
3621
3620 120
6621 BYD33D
5619
3619 15
3678 4k7
6625 1N5061
6624 1N5061
7625 BUT12AF
-2V5
276V
2625 1n
2626 470p
3626 180
9600
2652 1n
6640 BYD74B
1601 T2.5A
3659 180
2658 82n
6641 BYD74B
2653 1n
D200
D202
D203
6611 BZV85C
6610 LL4148
6615 LL4148
3622 47
6622 1N4148
6617 BZV85C5V1
2617
3617 180
9612
2612 1n
3610
6612 BDY33D
2607 2n2
2608 220p

Power supply/Stromversorgung/Alimentation


Synchronisation
Synchronisierung
Synchronisation
7470
TDA2579
7471
BC848
RES FOR SAT
RES FOR 16/9
IDENT.
TV
DATA
H.REF.
15625Hz
50Hz
G
FRAME FEEDBACK
BCI
D81
D77
B121
D99
C84
C206
C85
A28
C83
C207
D90
FO
A300
C100
C101
+200
TO 4M13
6571
BYD33D
148
-26
+148
6M71
+32A
+14E
+14C
+14
7455
BC856
7456
BC846B
7540
BC337
7454
BC858
6464
LLZ-C10
6483
1N4148
TP14
TP16
MAINS FILTER MODULE
1002
DEMAG.
2F30
1F30
1F68
1F67
2F67
1M67
2M67
3F25
2F25
1F25
TO DIAGRAM L ONLY FOR SATELLITE
1F33
3M33
2F33
2M33
3F33
1M33
BZX79
1N5061
3601
5625
7625
BUT12AF
276V'
-2V5'
BYD33D
BZV85C5V1
LL4148
BDY33D
Power supply
Stromversorgung
Alimentation
6675
BYD74B
+32
6640
6641
6661
+16
-16
+5
(+16: 110° & 16/9)
(+12: 90°)
(-16: 110° & 16/9)
(-12: 90°)
1601
T2,5A
TP1
TP2
TP3
TP4
TP5
TP6
6N23
4N23
4N37
6N37
2N23
5N23
6M23
4M23
4M37
6M37
2M23
5M23
POR
A29
0V
4V8


14
15
16
17
18
19
20
21
22
23
24
25
TO 4M13
6571
BYD33D
9512
2570
22u
6570
BYD33G
3570
6R8
6585
6M71
5M71
4571
3589
3588
5588
4572
RES
2588
4570
5545 (110°)
5545 (90°)
E78
E79
E80
C75
EHT
BCI
C76
D77
F
VG2
9501
2560
33n
1559
1AT
6563
BYD74C
10V
5563
10u
+8A
2539
470u
+32
3560
15k
9504
3561
2590
680n
3591
TP18
3590
6590
32V3
32V
7590
0V
+32
3545
2548
22n
5541
0V3
9513
9514
7545
21" =0V3
25"/28"=0V4
2543
4n7
3539
2545
2546
6546
BY228
2559
100u
1M71
H
LINE DEFL.
4M71
9511
3551
3552
3553
5554
LIN
9554
RES
2551
1u
6551
BYD33G
3550
12k
3549
12k
2550
9535
RES
3537
100k
9536
3538
RES
9506
9508
6547
BYW95C/20
2547
2538
RES
2561
120p
3541
22k
9509
Horizontal
Horizontal
Horizontal
3474
9505
5582
2u4
6580
1580
1.6AT
3478
3489
3477
6591
1N4148
6592
TP17
6561
6560
5534
110°
5534
90°
2524
2552
100n
9464
2580
1000u
2574
2n7
3483
33
3483
4148
9341
+14
+14D
3336
47
2378
100n
2355
330u
9534
RES
1534
SOPS C
MODU
4822 212
4822 212
PROT
E/W
C73
D70
C72
D90
A23
3616
4R7
D100
B62
D70
D71
6666
+32
5
+148B
5630
2u4
6630
9619
5631
27u
+148
(148V: 110°)
(137.5V: 16/9)
(95V: 90°)
2630
2631
2632
1n
3631
3634
3635
1k
TP12
TP11
TP10
9656
3672
2u2
6549
BA185
3637
100
3675
1M23
3M23
2M37
5M37
3M37
1M37
1007
SOPS CONTROL MODULE
G
TP9
1N10
13V7
1M36
D203
6M23
6N23
ST BY
OVER VOLT. PROTECT
DEMAG.
FEED BACK
FEED BACK COMP.
TDA8385
CNR50
16V4*
(5V7)
4M23
4N23
AUX SUP.
2660
1000u
PROTECT
CONTROL
TP8
3N10
3M36
D201
-3V*
(-0V4)
4M37
4N37
CONTROL SUP.
12V6
(11V6)
6M37
6N37
CONTROL
START
2M36
D202
4V5*
(0V6)
TP6
2M23
2N23
14V8
5V SUPPLY
RESET
5M23
5N23
REF.
TON MIN
SLOW START
DELAY SETTING
I MIRROR
UNDER VOLTAGE INHIT
TP7
4N10
295V
4M36
D200
* MEASURED IN RESPECT OF
3N23
POR
A29
+32
+32B
B86
7502
2SD1266P
9694
6504
LL4148
38V7
2502
22u
3502
6503
BYD33D
3501
3503
6505
LL4148
9500
7503
BD536
2500
560p
V-DRIVE
D99
7500
BC337
2501
1n8
2507
5) 21" =14V8
25"/28"=16V
6) 21" =42V
25"/28"=32V
7) 21" =14V5
25"/28"=15V1
8) 21" =13V1
25"/28"=6V7
9) 21" =42V
25"/28"=32V3
10) 21" =13V3
25"/28"=7V3
11) 21" =13V3
25"/28"=7V3
12) 21" =14V1
25"/28"=15V
13) 21" =13V8
25"/28"=14V8
14) 21" =0V5
25"/28"=0V5
Vertical
Vertikal
Vertical


26
27
28
29
3591
2V3
32V
7591
0V
3592
PROT
D71
+8A
BYD33G
3 5549 1
2549
3549
12k
2
4
9549
RES
9510
SOPS CONTROL
MODULE
322 212 31669 110
322 212 31715 90
328
B86
B68
+32B
+32B
D81
FRAME
NIL
FRAME
FEED
BACK
6)
7)
3520
7504
BC337/40
9)
8)
10)
3516
22k
3512
2R2
3514
1k8
2503
10n
2505
47n
3513
330
4504
11)
7505
BC327/40
TV
3505
470
TP19
9500
3M12
1M12
3506
V
16V5
2M12
7503
BD536
2507
22n
2506
3507
2509
1u
0V
TV
3517
3523
3508
3509
2R2
3535
3518
3504
3519
3529
3510
3511
2R2
3515
3546
3540
120
7546
BC848B
9522
2544
56n
FRAME2
FRAME1
C115
C114
cal
kal
cal
=13V8
28"=14V8
=0V5
28"=0V5
A+B+C+E
25
26
27
28
29
30
31
32
33

D

REMARKS/REMARQUES/ANMERKUNGEN/NOTE

PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERaTEN
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:

1) 25"-28" BLACK-LINE S
2) 21"-90°
3) BLACK-LINE 16/9
4) 21"-110°
5) 29"

*	1)	2)	3)	4)	5)
1534	315mA	-	315mA	315mA	315mA
2453	22u	22u	22u	22u	22u
2455	1n	1n	3n3	560p	3n3
2460	2n7	10n	10n	1n5	3n3
2474	-	-	100n	-	-
2506	1000u	1000u	2200u	1000u	1000u
2524	-	4u7	-	-	-
2545	1n5	1n2	1n5	1n2	1n5
2546	11n	13n	12n	7n5	13n
2547	27n	47n	22n	22n	27n
2549	470n	-	470n	470n	470n
2550	390n	680n	-	330n	680n
2588	JMP	RES	470p	-	-
2605	220u	150u	220u	220u	220u
2617	1u	470n	1u	1n	1u
2630	100u	47u	100u	100u	100u
2631	100u	47u	100u	100u	100u
2662	270p	220p	270p	-	270p
2663	82p	100p	82p	-	82p
2675	1000u	680u	1000u	100u	1000u
3463	18k	18k	3k3	18k	18k
3464	12k	12k	-	12k	12k
3467	2M7	3M3	2M2	3M9	2M7
3471	120k	470k	120k	270k	270
3472	-	-	820k	-	-
3473	270k	270k	330k	270k	270k
3474	5k6	5k6	2k7	5k6	5k6
3477	2R2	0R5	-	0R5	0R5
3478	4R7	0R5	-	0R5	0R5
3489	0R5	1R	-	0R5	0R5
3501	22	27	27	22	22
3502	1k2	2k7	1k2	1k2	1k2
3503	1R2	4R7	1R2	1R2	1R5
3504	100	100	-	100	100
3506	330k	330k	270k	330k	470k
3507	22k	27k	22k	27k	33k
3508	2R2	2R2	-	-	2R2
3510	2R2	2R2	2R2	-	2R2
3515	2R2	2R2	-	2R2	2R2
3517	2R2	-	2R2	2R2	2R2
3518	-	-	10	-	-
3519	2R2	-	2R2	2R2	2R2
3520	4k7	4k7	-	4k7	4k7
3523	2R2	1n	2R2	1n	2R2
3529	2R2	-	2R2	1n	2R2
3535	120	150	-	120	120
3539	470k	470k	470k	470k	470k
3542	1k	2k7	-	1k	1k
3545	180	330	180	330	220
3546	180	120	-	150	180
3551	560	560	-	560	560
3552	560	560	-	560	560
3553	560	560	-	560	560
3560	15k	33k	15k	15k	15k
3561	2k2	3k3	5k6	12k	2k2
3588	-	27	560	27	-
3589	-	27	1k5	27	-
3590	330k	-	100k	330k	330k
3591	6k8	-	6k8	6k8	6k8
3592	680	-	680	680	680
3610	8R2	6R8	8R2	8R2	8R2
3621	27	56	27	27	27
3631	220k	120k	220k	220k	220k
3634	3k3	2k7	3k3	3k3	3k3
3675	120k	47k	120k	120k	120k
5549	100u	-	100u	100u	100u
5554	COIL LC90	AT4042/ 97	-	AT4042/ 97	COIL LC90
5588	100u	22u	100u	22u	100u
5619	3u9	4u7	3u9	3u9	3u9
6642	BZX79/ C15	BZX79/ C22	-	BZX79/ C15	BZX79/ C15
6560	LL4148	-	LL4148	LL4148	LL4148
6561	BZX79/ C68	-	BZX79/ C68	BZX79/ C68	BZX79/ C68
6580	BYV28- 200/20	BYV28- 200	BYU29F	BYV28- 200/20	BYV28- 200
6585	BYD33G	-	BYD33G	BYD33G	BYD33G
6590	LLZ/C33	-	LLZ/C33	LLZ/C33	LLZ/C33
6592	LLZ/C27	LLZ/C27	-	LLZ/C27	LLZ/C22
6630	BY229F- 600	BYD74G	BY229F- 600	BY229F- 600	BY229F- 600
6666	LLZ/C36	LLZ/C43	LLZ/C36	LLZ/C36	LLZ/C36
6470	-	-	LLZ/CW8	-	-
7575	BU508AF	BU508AF	BU508AF	BU508AF	BU2520AF
7591	BC858B	-	BC858B	BC858B	BC858B

1002	H 4	3481	E 3	6542	F13
1007	J22	3482	E 2	6546	D19
1050	I 1	3483	G14	6547	E17
1534	G24	3484	C12	6549	J15
1559	C23	3485	C12	6551	D25
1580	F18	3486	C13	6560	F23
1600	K 2	3487	D 3	6561	F22
1601	N11	3488	F13	6563	C24
2355	G16	3489	F20	6570	A16
2378	G16	3490	F13	6571	A14
2451	E 4	3501	K24	6580	F17
2453	C12	3502	J24	6585	B16
2455	G 8	3503	K25	6590	B25
2456	D11	3504	M28	6591	F21
2457	D12	3505	K26	6592	F22
2458	B 9	3506	K27	6602	J 6
2459	H 9	3507	L27	6603	J 7
2460	H 8	3508	L27	6604	K 6
2461	E11	3509	L27	6605	K 7
2462	B10	3510	M27	6610	N 2
2464	B 6	3511	M27	6611	N 2
2465	G13	3512	J28	6612	O 7
2466	B 7	3513	J27	6615	N 3
2467	B 7	3514	J27	6617	N 4
2468	B 6	3515	M27	6621	M 3
2469	B 5	3516	J29	6622	O 3
2470	D 5	3517	L26	6624	M 5
2471	G 6	3518	M28	6625	M 5
2472	E 3	3519	M26	6630	I17
2473	G 6	3520	I26	6640	M11
2474	G 5	3523	L26	6641	N11
2475	H 7	3529	M26	6661	K13
2476	B10	3535	L28	6666	H17
2500	L24	3537	E15	6675	J11
2501	M24	3538	E16	7454	F12
2502	J25	3539	D17	7455	C11
2503	J26	3540	N28	7456	C13
2505	J26	3541	E15	7470	B 6
2506	L27	3542	F12	7471	B 3
2507	L26	3543	E12	7500	L25
2509	L28	3545	C14	7502	I25
2524	F24	3546	M29	7503	L25
2538	E14	3548	D13	7504	I28
2539	C24	3549	D25	7505	K28
2543	D16	3550	D25	7540	E13
2544	N28	3551	C23	7545	C16
2545	D17	3552	C23	7546	N29
2546	D17	3553	C24	7591	B26
2547	E17	3560	A24	7625	L 6
2548	D14	3561	B24	8010	I 3
2549	D27	3570	A17	9341	G16
2550	D24	3588	B17	9450	H12
2551	D24	3589	B16	9452	G 9
2552	F22	3590	B24	9453	G 9
2559	D14	3591	B25	9454	G10
2560	B22	3592	B26	9455	D 2
2561	E16	3600	I 1	9456	E12
2570	A14	3601	K 5	9457	C 2
2574	F17	3603	I 3	9463	D 3
2580	F16	3603	J 4	9464	F15
2588	C17	3604	K 3	9467	A11
2590	B24	3605	J 4	9471	D 4
2600	J 2	3606	J 3	9472	D 4
2601	I 6	3607	I 5	9500	K25
2602	J 6	3608	K 4	9501	B22
2604	K 6	3610	O 6	9504	A24
2605	K 8	3616	I15	9505	F16
2607	O 9	3617	N 5	9506	D17
2608	O10	3619	M 4	9508	E18
2612	N 7	3620	M 3	9509	E24
2617	N 4	3621	M 3	9510	E27
2620	M 3	3622	N 3	9511	D22
2625	M 7	3626	M 7	9512	A15
2626	M 7	3631	I18	9513	D15
2630	I20	3634	J18	9514	D16
2631	I21	3635	J19	9522	M29
2632	J17	3637	J16	9534	G24
2640	M11	3659	N10	9535	D25
2641	N11	3672	J15	9536	E16
2652	M11	3675	J17	9549	D26
2653	O11	3677	K12	9554	D23
2658	N11	3678	M 5	9600	L 8
2660	L14	3682	L13	9601	J10
2675	J11	4452	G10	9602	N12
2676	J11	4460	C 2	9603	N12
3336	G16	4461	C 3	9612	N 7
3450	G10	4485	C12	9619	I20
3451	F11	4504	J28	9631	H 5
3453	B13	4570	C15	9656	J14
3454	B11	4571	B15	9658	K12
3455	C11	4572	C15	9666	J12
3456	D11	5534	E23	9667	M12
3457	B 8	5534	E24	9693	J12
3458	A 8	5541	D15	9694	I24
3459	G10	5545	A18	9697	M12
3460	H 9	5545	A18	9699	N12
3461	H10	5549	D26		
3462	C 5	5554	D23		
3463	E 4	5563	C25		
3464	F 4	5582	F16		
3465	G 8	5588	B17		
3466	A 7	5600	J 5		
3467	H 8	5605	J 5		
3468	A 6	5606	K 3		
3469	A 5	5619	L 4		
3470	A11	5625	H 9		
3471	G 6	5630	I17		
3472	G 5	5631	I21		
3473	G 5	5632	N12		
3474	F14	5875	J10		
3475	A10	6464	C11		
3476	B 2	6470	F 2		
3477	F21	6483	G13		
3478	F21	6503	J25		
3479	G12	6504	I24		
3480	G12	6505	K24		

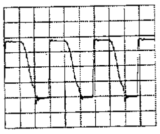
CHASSIS GR2.4

CL46532061/016.DPAR
181094

TP1 = DC 15V9

TP2 = DC -15V9

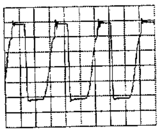
TP3



20V/div AC
5µs div

TP4 = DC 9V7

TP5

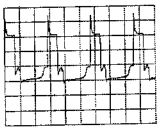


5V/div AC
5µs div

TP6 = DC 4V8

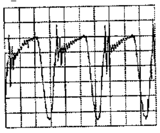
TP7 = DC 298V

TP8



2V/div AC
5µs div

TP9



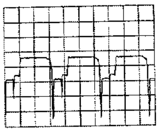
0.2V/div AC
5µs div

TP10 = DC 2V4

TP11 = DC 0V

TP12 = DC 2V7

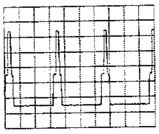
TP14



2V/div AC
20µs div

TP15 = DC 13V4

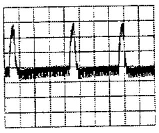
TP16



2V/div AC
20µs div

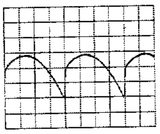
TP17 = DC 0V

TP18



2V/div AC
5ms div

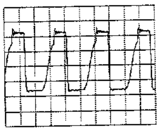
TP19



1V/div AC
5ms div

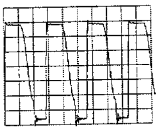
① = DC 298V

②



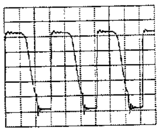
10V/div AC
5µs div

③



50V/div AC
5µs div

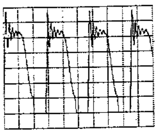
④



5V/div AC
5µs div

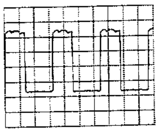
(5a) = DC 144V

⑥



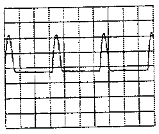
100V/div AC
5µs div

⑦



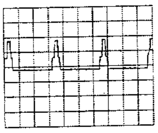
0.5V/div AC
20µs div

⑧



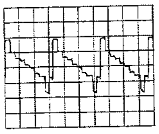
1V/div AC
20µs div

⑨

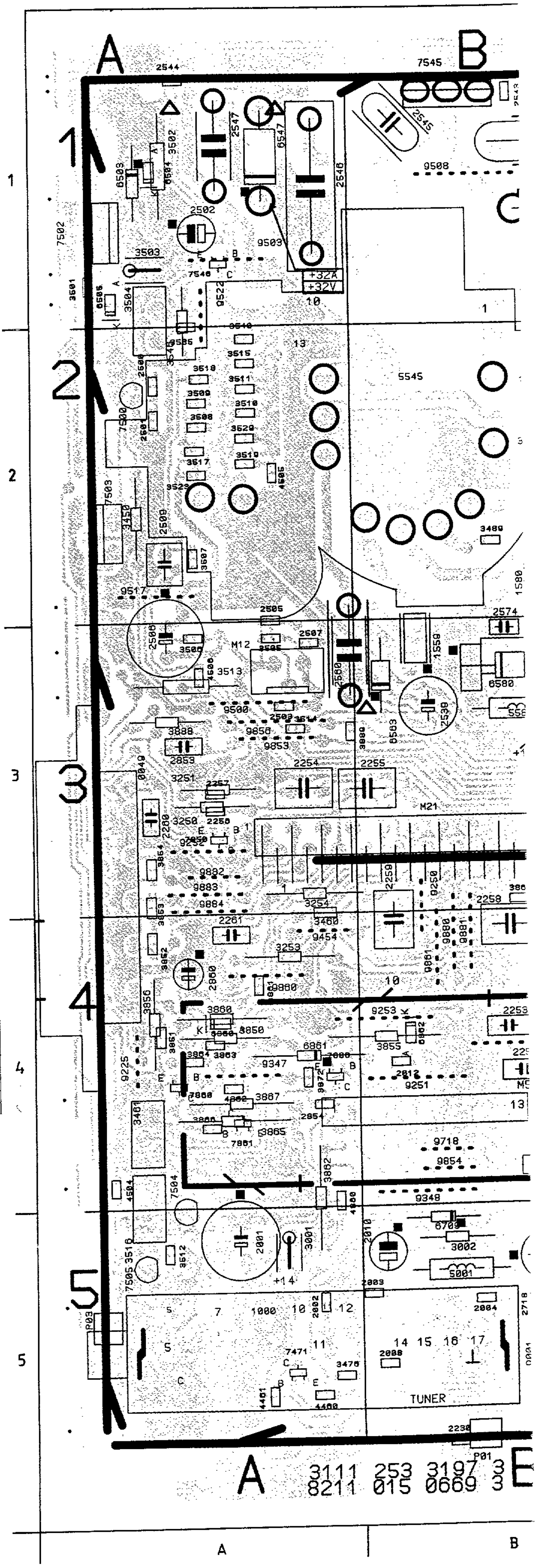


5V/div AC
20µs div

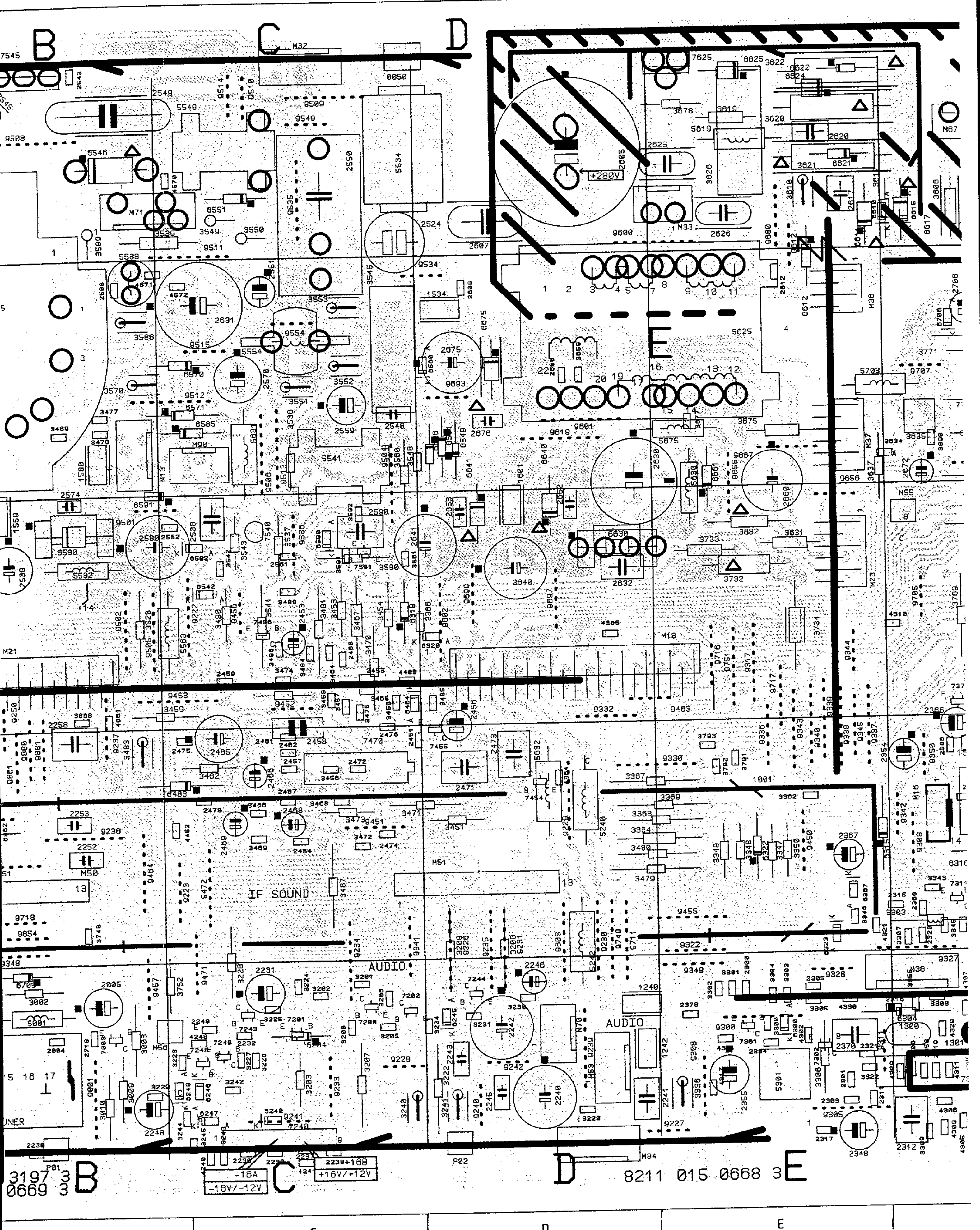
⑩

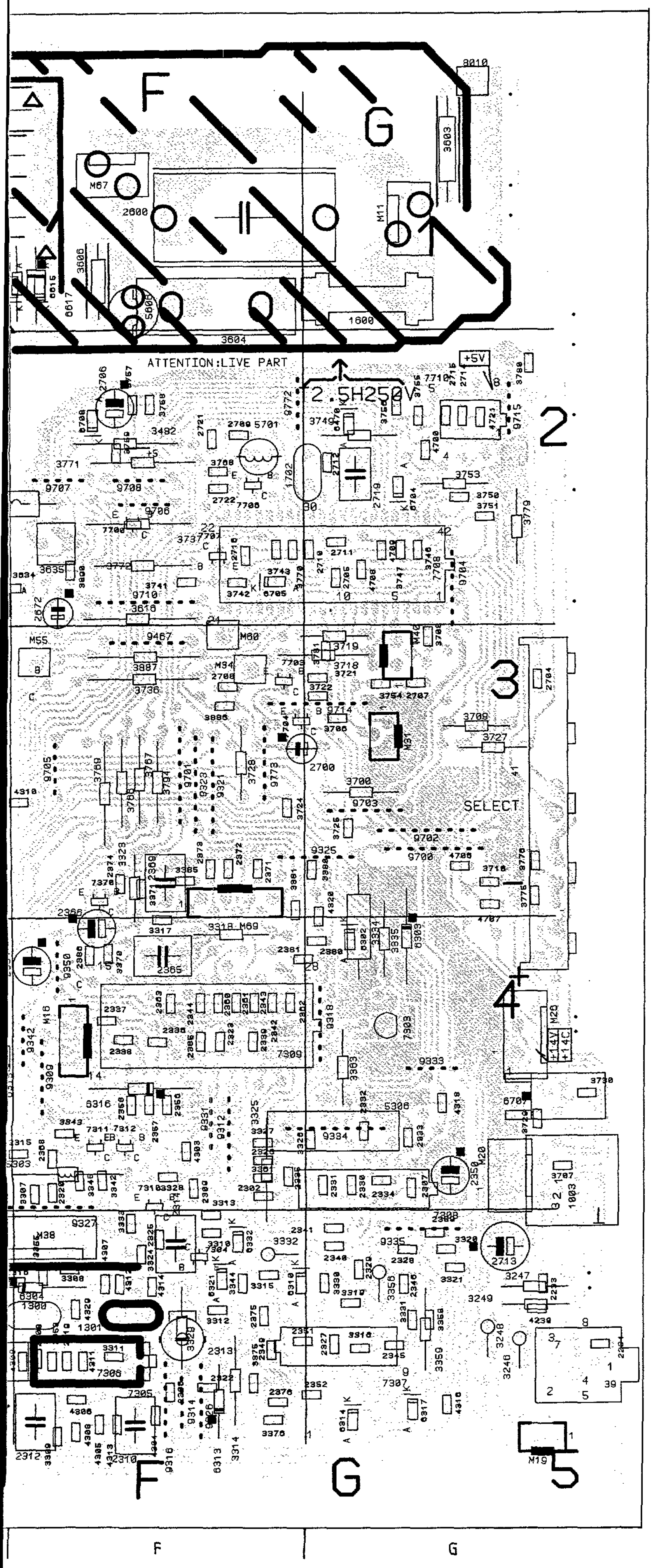


0.5V/div AC
20µs div


A
B
1
2
3
4
5
2544
7545
2545
2547
6547
2548
3502
6503
6504
9508
7502
2502
9503
3503
7540
+32A
+32V
10
3501
6505
3504
9522
3510
13
3515
5545
3518
3511
3509
3510
3508
3520
7500
3517
3519
7503
3521
4505
3450
2509
3507
3489
9517
2505
2574
2507
2506
3506
M12
3505
3513
1550
1580
6580
9500
2503
3514
2539
6509
3888
9850
9853
2853
2254
2255
3251
2257
M21
3250
2256
2200
9252
9882
9883
9884
3854
3254
3460
9454
2259
9250
2258
2261
3253
3853
3852
2860
9880
3860
9253
2253
3850
3856
3855
6861
3861
3864
3863
9347
7860
9251
9225
7868
4862
3867
2854
3401
3866
3865
7861
9718
9854
4504
7504
3862
9348
6703
3002
3001
2001
2010
7505
3516
3512
5001
+14
2003
2004
2718
P03
1000
2002
12
14
15
16
17
7471
3470
2008
4401
4400
TUNER
2230
P01
3111 253 3197 3
8211 015 0669 3
E

Mono carrier / Hauptplatine / Châssis

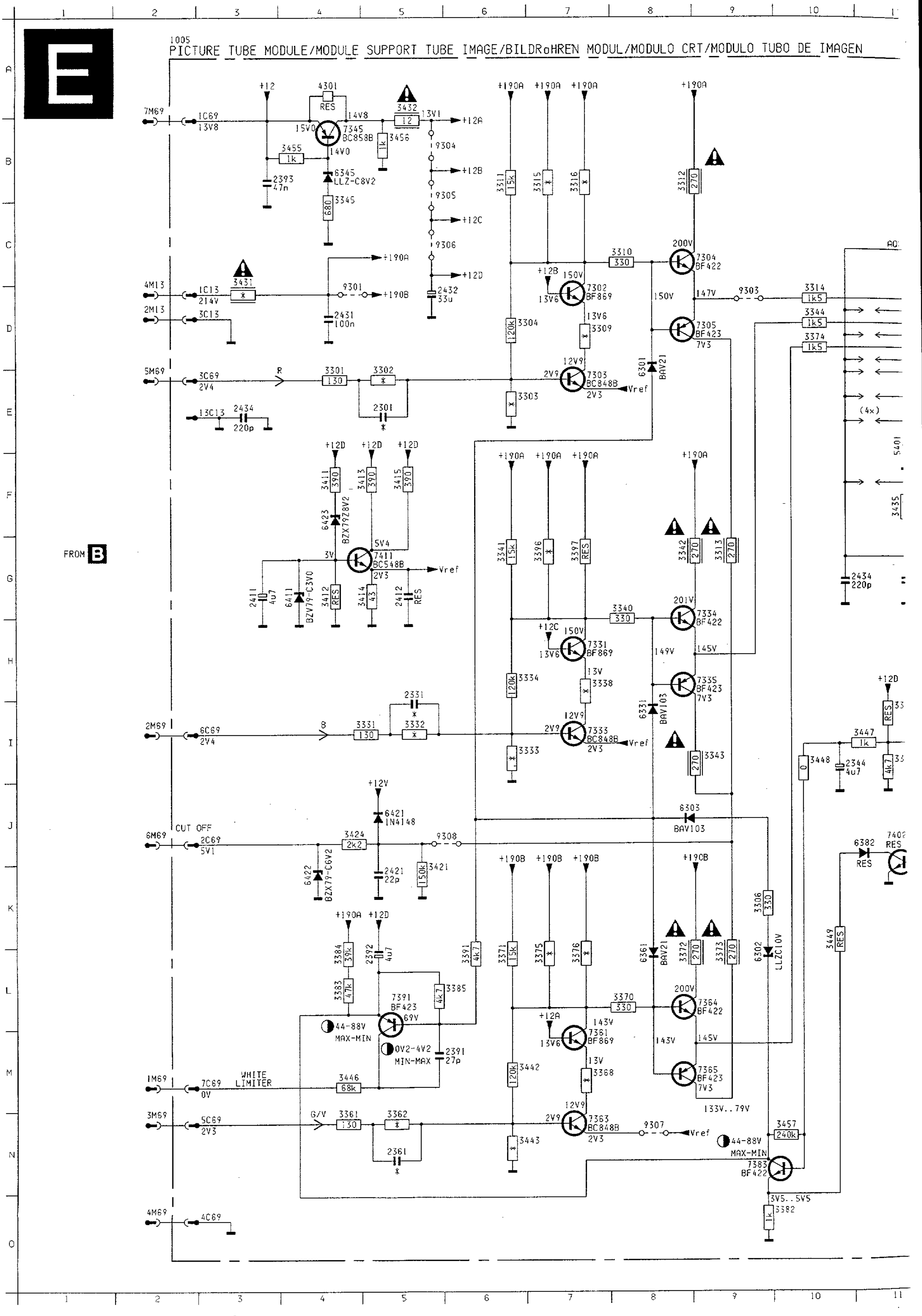

B
C
D
E
+280V
IF SOUND
AUDIO
AUDIO
M51
M18
M32
M33
M38
M50
M70
M71
M84
M90
5625
-16A
-16V/-12V
+16B
+16V/+12V
P01
P02
UNER
3197 3
0669 3
8211 015 0668 3
1 2 3 4 5 7 8 9 10 11
22 20 19 17 16 15 14 13 12
B
C
D
E

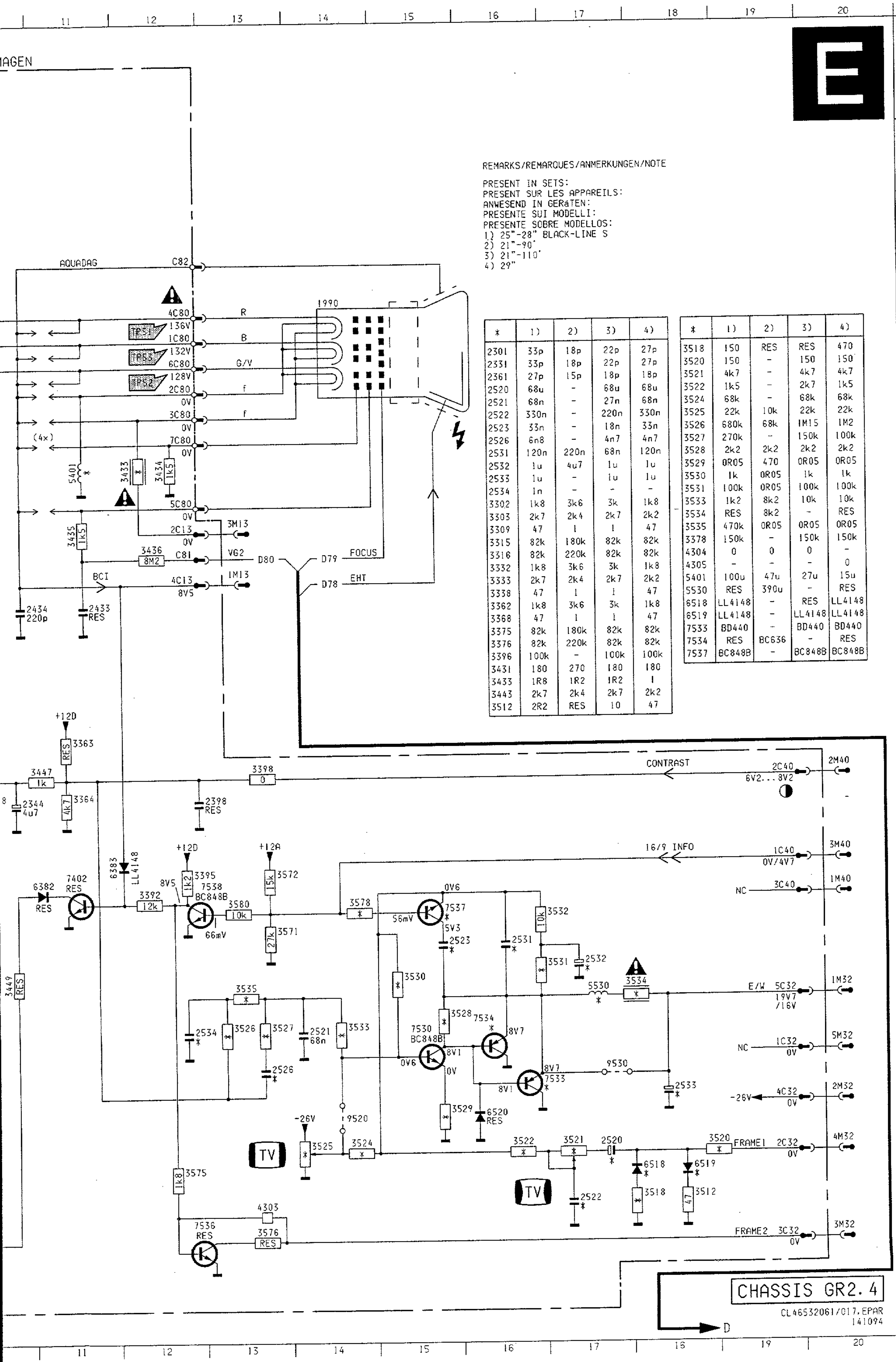


0049	A3
0050	C1
1000	A5
1003	G4
1240	D5
1242	D5
1300	F5
1301	F5
1534	D2
1559	B3
1580	B2
1600	G1
1601	D3
1702	G2
2001	A5
2003	B5
2004	B5
2005	B5
2008	B5
2010	B5
2012	B4
2230	B5
2231	C5
2232	C5
2233	G5
2234	G5
2236	C5
2237	C5
2238	C5
2239	C5
2240	D5
2241	D5
2242	D5
2243	D5
2245	D5
2246	D5
2248	B5
2249	C5
2252	B4
2253	B4
2254	A3
2255	B3
2256	A3
2257	A3
2258	B4
2259	B4
2260	A3
2261	A4
2300	E5
2301	E5
2302	F4
2303	E5
2304	E5
2305	E5
2306	F5
2307	G4
2308	F5
2309	F4
2310	F5
2311	E5
2312	F5
2313	F5
2314	F5
2315	E4
2316	E5
2317	E5
2319	F5
2320	F4
2321	E5
2322	F5
2323	F4
2325	F5
2326	F4
2327	G5
2328	G5
2329	G5
2330	G4
2331	G4
2332	G4
2333	G4
2334	G4
2335	F4
2336	F4
2337	F4
2338	F4
2339	F4
2340	G5
2341	G5
2342	F4
2343	F4
2344	F4
2345	G5
2346	G5
2348	E5
2349	F5
2350	G4
2351	F5
2352	F5
2353	F5
2354	F4
2355	E5
2356	F4
2357	F4
2358	F4
2359	G5
2360	F4
2361	F4
2362	F4
2363	F4
2365	F4
2366	F4
2367	E4
2368	F4
2369	F3
2370	E5
2371	F3
2372	F3
2373	F3
2374	F3
2375	F5
2376	F5
2378	E5
2380	G4
2381	F4
2385	F4
2386	F4
2451	C4
2453	C3
2455	C3
2456	D4
2457	C4
2458	C4
2459	C3
2460	C3
2461	C4
2462	C4
2464	C4
2465	C4
2466	C4
2467	C4
2468	C4
2469	C4
2470	C4
2471	D4
2472	C4
2473	D4
2474	C4
2475	B4
2476	C3
2500	A2
2501	A2
2502	A1
2503	A3
2505	A2
2506	A3
2507	A3
2509	A2
2524	C1
2538	C3
2539	B3
2543	B1
2544	A1
2545	B1
2546	A1
2547	A1
2548	C2
2549	B1
2550	C1
2551	C2
2552	B3
2559	C2
2560	A3
2561	C3
2570	C2
2574	B3
2580	B3
2588	B2
2590	C3
2600	F1
2605	D1
2607	D1
2608	D2
2612	E2
2617	E1
2620	E1
2625	E1
2626	E1
2630	D3
2631	C2
2632	D3
2640	D3
2641	D3
2652	D3
2653	D3
2658	D2
2660	E3
2672	F2
2675	D2
2676	D2
2700	F3
2704	G3
2705	G2
2706	F2
2707	G3
2708	F3
2709	F2
2710	G2
2711	G2
2712	G2
2713	G5
2714	G2
2715	G2
2716	F2
2718	B5
2719	G2
2721	F2
2722	F2
2853	A3
2854	A4
2860	A4
3001	A5
3002	B5
3003	B5
3009	B5
3010	B5
3200	C5
3201	C5
3202	C5
3203	C5
3204	C5
3205	C5
3206	C5
3207	C5
3208	D4
3209	D4
3220	D5
3222	D5
3223	B5
3224	C5
3225	C5
3226	C5
3227	C5
3228	C4
3229	B5
3230	D5
3231	D5
3240	C5
3241	D5
3242	C5
3243	C5
3244	B5
3245	B5
3246	G5
3247	G5
3248	G5
3249	G5
3250	A3
3251	A3
3253	A4
3254	A3
3300	E5
3301	E5
3302	E5
3303	E5
3304	E5
3305	E5
3306	E5
3307	F4
3308	F5
3309	F5
3310	F5
3311	F5
3312	F5
3313	F5
3314	F5
3315	F5
3316	G5
3317	F4
3318	F4
3319	G5
3320	G5
3321	G5
3322	E5
3323	F3
3324	F5
3325	F4
3326	F4
3327	F4
3328	F4
3329	F5
3330	G5
3331	G5
3332	F5
3333	F5
3334	G4
3335	G4
3336	E5
3342	F4
3343	F4
3344	F5
3345	F4
3346	E4
3347	E4
3348	E4
3349	E4
3350	E4
3355	F5
3356	G5
3358	G5
3359	G5
3361	F4
3362	E4
3363	G4
3364	D4
3366	C3
3367	D4
3368	E4
3369	E4
3370	F4
3371	F3
3375	F5
3376	F5
3380	G3
3381	F3
3385	F3
3450	A2
3451	D4
3453	C3
3454	C3
3455	C3
3456	C4
3457	C3
3458	C3
3459	B3
3460	A3
3461	A4
3462	C4
3463	C3
3464	C3
3465	C3
3466	C4
3467	C3
3468	C4
3469	C4
3470	C3
3471	C4
3472	C4
3473	C4
3474	C3
3475	C3
3476	A5
3477	B2
3478	B2
3479	D4
3480	D4
3481	C3
3482	F2
3483	B4
3484	C3
3485	D3
3486	C3
3487	C4
3488	C3
3489	B2
3490	C3
3501	A1
3502	A1
3503	A1
3504	A1
3505	A3
3506	A3
3507	A2
3508	A2
3509	A2
3510	A2
3511	A2
3512	A5
3513	A3
3514	A3
3515	A2
3516	A4
3517	A2
3518	A2
3519	A2
3520	B3
3523	A2
3529	A2
3535	A1
3537	C3
3538	C2
3539	B1
3540	A2
3541	C3
3542	C3
3543	C3
3545	C2
3546	A1
3548	C2
3549	C1
3550	C1
3551	C2
3552	C2
3553	C2
3560	C2
3561	C3
3570	B2
3588	B2
3589	B1
3590	C3
3591	C3
3592	C3
3603	G1
3604	F1
3606	F1
3610	E1
3616	F2
3617	F1
3619	E1
3620	E1
3621	E1
3622	E1
3626	E1
3631	E3
3634	E2
3635	F2
3637	E2
3659	D2
3675	E2
3677	E2
3678	E1
3682	E3
3700	G3
3706	G3
3707	G4
3708	G3
3709	G3
3710	G3
3718	G3
3719	G3
3721	G3
3722	G3
3724	F3
3725	G3
3727	G3
3728	F3
3729	G4
3730	G4
3732	E3
3733	E3
3734	E3
3736	F3
3737	F2
3741	F2
3742	F2
3743	F2
3746	G2
3747	G2
3748	B4
3749	G2
3750	G2
3751	G2
3752	B5
3753	G2
3754	G3
3755	G2
3756	G2
3757	F2
3758	F2
3759	F2
3766	F3
3767	F3
3768	F2
3769	F3
3770	F2
3771	F2
3772	F2
3775	G3
3776	G3
3779	G2
3780	G2
3781	G3
3791	E4
3792	E4
3793	E4
3794	F3
3850	A4
3851	A4
3852	A4
3853	A3
3854	A3
3855	B4
3856	A4
3860	A4
3861	A4
3862	A4
3863	A4
3864	A4
3865	A4
3866	A4
3867	A4
3868	B3
3872	A4
3886	F3
3887	F3
3888	A3
3889	A3
3890	F2
4239	G5
4240	C5
4241	C5
4248	C5
4301	E5
4302	E5
4303	F4
4304	F5
4305	F5
4306	F5
4307	F5
4308	F5
4309	F5
4310	F3
4311	F5
4312	F5
4313	F5
4314	F5
4316	G5
4317	E5
4318	G4
4320	G4
4321	E4
4329	F5
4330	E5
4364	D4
4365	D3
4452	B4
4460	A5
4461	A5
4485	C3
4502	@5
4504	A4
4505	A2
4506	A3
4570	B1
4571	B2
4572	B2
4700	G2
4706	G3
4707	G3
4708	G2
4709	G2
4721	G2
4860	A4
4861	B3
4862	A4
4901	@2
4902	@2
5001	B5
5240	D4
5242	D4
5301	E5
5303	F4
5306	G4
5534	D1
5541	C2
5545	B2
5549	C1
5554	C2
5563	B3
5582	B3
5588	B2
5606	F1
5619	E1
5625	D2
5630	E3
5631	C2
5632	D4
5675	E2
5701	F2
5703	E2
6204	C5
6240	C5
6245	D5
6246	C5
6247	C5
6248	B5
6300	E5
6302	G4
6303	G4
6304	F5
6310	F5
6313	F5
6314	G5
6315	E4
6316	F4
6317	G5
6319	C3
6320	D3
6321	F5
6322	E4
6323	E4
6332	F5
6367	E4
6464	C3
6470	G2
6483	B4
6503	A1
6504	A1
6505	A1
6542	C3
6546	B1
6547	A1
6549	D2
6551	C1
6560	D2
6561	D2
6563	B3
6570	B2
6571	B2
6580	B3
6585	C2
6590	C3
6591	B2
6592	C3
6610	E1
6611	E1
6612	E2
6615	F1
6617	F1
6621	E1
6622	E1
6624	E1
6625	E1
6630	D3
6640	D3
6641	D3
6661	E2
6666	D2
6675	D2
6704	G2
6705	F2
6707	G4
6708	F2
6709	B5
6860	A4
6861	A4
6862	B4
7003	B5
7200	C5
7201	C5
7202	C5
7240	C5
7243	C5
7244	D5
7248	C5
7249	C5
7301	E5
7302	E5
7303	G4
7304	F5
7305	F5
7306	F5
7307	F5
7308	G5
7309	F4
7310	F4
7311	F4
7312	F4
7370	F3
7454	D4
7455	D4
7456	C3
7470	C4
7471	A5
7500	A2
7502	A1
7503	A2
7504	A5
7505	A5
7540	C3
7545	B1
7546	A1
7591	C3
7625	E1
7700	F2
7703	F3
7704	F3
7706	F2
7707	F2
7708	G2
7710	G2
7850	A3
7860	A4
7861	A4
7886	A4
8010	G1
9001	B5
9222	C3
9223	B4
9225	A4
9226	D4
9227	E5
9228	C5
9229	D4
9230	D4
9231	D4
9233	C5
9234	C5
9235	D4
9236	B4
9237	B3
9239	D5
9240	D5
9241	C5
9242	D5
9250	B3
9251	B4
9252	A3
9253	B4
9300	E5
9305	E5
9308	E5
9309	F4
9311	E5
9312	F4
9314	F5
9316	F5
9317	E3
9318	G4
9321	F3
9322	E4
9323	F3
9325	G3
9326	F5
9327	F4
9328	E5
9330	D4
9331	F4
9332	D3
9333	G4
9334	G4
9335	G5
9336	E4
9337	E4
9338	E4
9339	E4
9340	E4
9341	C4
9342	F4
9343	E4
9344	E3
9345	E4
9347	A4
9348	B4
9349	E5
9350	F4
9450	E4
9451	C4
9452	C3
9453	B3
9454	A4
9455	E4
9456	C3
9457	B5
9463	D3
9464	B4
9467	F3
9471	C5
9472	C4
9500	A3
9501	B3
9502	B3
9503	A1
9504	C2
9505	B3
9506	C2
9508	B1
9509	C1
9510	C1
9511	C1
9512	B2
9513	C2
9514	C1
9515	C2
9517	A2
9522	A1
9534	D2
9535	C1
9536	C3
9549	C1
9554	C2
9600	E1
9601	D2
9602	D3
9603	D4
9612	E1
9619	D2
9656	E3
9658	E2
9667	E2
9680	E1
9693	D2
9697	D3
9699	D3
9700	G3
9701	F3
9702	G3
9703	G3
9704	G2
9705	F3
9706	F2
9707	F2
9708	F2
9710	F2
9711	D4
9714	G3
9715	G2
9716	E3
9717	E3
9718	B4
9749	D4
9751	E3
9772	F2
9773	F3
9853	A3
9854	B4
9856	A3
9860	A4
9861	B4
9880	B4
9881	B4
9882	A3
9883	A3
9884	A3
M11	G1
M12	A3
M13	B2
M16	F4
M18	D3
M19	G5
M20	G4
M21	B3
M23	E3
M26	G4
M31	G3
M32	C1
M33	E1
M34	F3
M36	E2
M37	E2
M38	E5
M40	G3
M50	B4
M51	D4
M53	D5
M55	F3
M56	B5
M60	F3
M67	F1
M69	F3
M70	D5
M71	B1
M84	D5
M90	C2
P01	B5
P02	D5
P03	A5

PCS 74 242

Picture tube panel/Bildröhren platte/Platine TRC


E
1005
PICTURE TUBE MODULE/MODULE SUPPORT TUBE IMAGE/BILDRoHREN MODUL/MODULO CRT/MODULO TUBO DE IMAGEN
FROM B
7M69
1C69
13V8
4M13
1C13
214V
2M13
3C13
5M69
3C69
2V4
13C13
2434
220p
2M69
6C69
2V4
CUT OFF
6M69
2C69
5V1
1M69
7C69
0V
WHITE LIMITER
3M69
5C69
2V3
4M69
4C69
+12
4301
RES
7345
BC858B
15V0
14V8
14V0
3455
1k
2393
47n
6345
LLZ-C8V2
680
3345
3432
12
13V1
3456
1k
+12A
9304
+12B
9305
+12C
9306
+12D
2432
33u
3431
+190A
9301
+190B
2431
100n
R
3301
130
3302
2301
+12D
3411
390
3413
390
3415
390
6423
BZX79Z8V2
5V4
3V
7411
BC548B
2V3
Vref
2411
4u7
6411
BZV79-C3V0
3412
RES
3414
43
2412
RES
B
3331
130
3332
2331
+12V
6421
1N4148
3424
2k2
9308
6422
BZX79-C6V2
2421
22p
150k
3421
+190A
+12D
3384
39k
2392
4u7
3383
47k
7391
BF423
69V
3385
4k7
44-88V
MAX-MIN
0V2-4V2
MIN-MAX
2391
27p
3446
68k
G/V
3361
130
3362
2361
3391
4k7
3311
15k
3315
3316
3304
120k
3303
7302
BF869
150V
13V6
3309
12V9
2V9
7303
BC848B
2V3
3310
330
200V
7304
BF422
150V
147V
9303
3312
270
7305
BF423
7V3
6301
BAV21
3314
1k5
3344
1k5
3374
1k5
(4x)
5401
3435
2434
220p
3341
15k
3396
3397
RES
3334
120k
3333
7331
BF869
150V
13V
3338
7333
BC848B
3340
330
201V
7334
BF422
149V
145V
7335
BF423
6331
BAV103
3342
270
3313
270
3343
270
6303
BAV103
+190B
3371
15k
3375
3376
3442
120k
3443
7361
BF869
143V
3368
7363
BC848B
9307
3370
330
7364
BF422
145V
143V
7365
BF423
133V..79V
6361
BAV21
3372
270
3373
270
3306
330
6302
LLZC10V
3457
240k
7383
BF422
3V5..5V5
3382
1k
+12D
3447
1k
3448
0
2344
4u7
4k7
6382
RES
7402
RES
3449
RES
1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O


E
AQUADAG
C82
4C80
136V
1C80
132V
6C80
128V
2C80
0V
3C80
0V
7C80
0V
5C80
0V
2C13
0V
C81
4C13
8V5
R
B
G/V
F
F
1990
TPS1
TPS3
TPS2
(4x)
5401
3433
3434
1k5
3435
1k5
3436
8M2
VG2
D80
D79
D78
FOCUS
EHT
3M13
1M13
BCI
2434
220p
2433
RES
+12D
3363
RES
3447
1k
2344
4u7
3364
4k7
3398
0
2398
RES
CONTRAST
2C40
6V2...8V2
2M40
16/9 INFO
1C40
0V/4V7
3M40
NC
3C40
1M40
6383
LL4148
6382
RES
7402
RES
3392
12k
8V5
+12D
3395
1k2
7538
BC848B
66mV
3580
10k
+12A
3572
15k
3571
27k
3578
56mV
7537
0V6
5V3
2523
3532
10k
2531
3531
2532
5530
3534
E/W
5C32
19V7
/16V
1M32
3535
2534
3526
3527
2521
68n
3533
3530
3528
7534
8V7
7530
BC848B
0V6
8V1
0V
8V7
7533
8V1
9530
2533
NC
1C32
0V
5M32
2526
-26V
4C32
0V
2M32
3529
6520
RES
9520
-26V
3525
3524
TV
3522
3521
2520
3520
FRAME1
2C32
0V
4M32
6518
6519
2522
3518
3512
47
TV
3449
RES
3575
1k8
4303
7536
RES
3576
RES
FRAME2
3C32
0V
3M32
D
11
12
13
14
15
16
17
18
19
20

REMARKS/REMARQUES/ANMERKUNGEN/NOTE

PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERäTEN:
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:
1) 25"-28" BLACK-LINE S
2) 21"-90˚
3) 21"-110˚
4) 29"

*	1)	2)	3)	4)
2301	33p	18p	22p	27p
2331	33p	18p	22p	27p
2361	27p	15p	18p	18p
2520	68u	-	68u	68u
2521	68n	-	27n	68n
2522	330n	-	220n	330n
2523	33n	-	18n	33n
2526	6n8	-	4n7	4n7
2531	120n	220n	68n	120n
2532	1u	4u7	1u	1u
2533	1u	-	1u	1u
2534	1n	-	-	-
3302	1k8	3k6	3k	1k8
3303	2k7	2k4	2k7	2k2
3309	47	1	1	47
3315	82k	180k	82k	82k
3316	82k	220k	82k	82k
3332	1k8	3k6	3k	1k8
3333	2k7	2k4	2k7	2k2
3338	47	1	1	47
3362	1k8	3k6	3k	1k8
3368	47	1	1	47
3375	82k	180k	82k	82k
3376	82k	220k	82k	82k
3396	100k	-	100k	100k
3431	180	270	180	180
3433	1R8	1R2	1R2	1
3443	2k7	2k4	2k7	2k2
3512	2R2	RES	10	47

*	1)	2)	3)	4)
3518	150	RES	RES	470
3520	150	-	150	150
3521	4k7	-	4k7	4k7
3522	1k5	-	2k7	1k5
3524	68k	-	68k	68k
3525	22k	10k	22k	22k
3526	680k	68k	1M15	1M2
3527	270k	-	150k	100k
3528	2k2	2k2	2k2	2k2
3529	0R05	470	0R05	0R05
3530	1k	0R05	1k	1k
3531	100k	0R05	100k	100k
3533	1k2	8k2	10k	10k
3534	RES	8k2	-	RES
3535	470k	0R05	0R05	0R05
3378	150k	-	150k	150k
4304	0	0	0	-
4305	-	-	-	0
5401	100u	47u	27u	15u
5530	RES	390u	-	RES
6518	LL4148	-	RES	LL4148
6519	LL4148	-	LL4148	LL4148
7533	BD440	-	BD440	BD440
7534	RES	BC636	-	RES
7537	BC848B	-	BC848B	BC848B

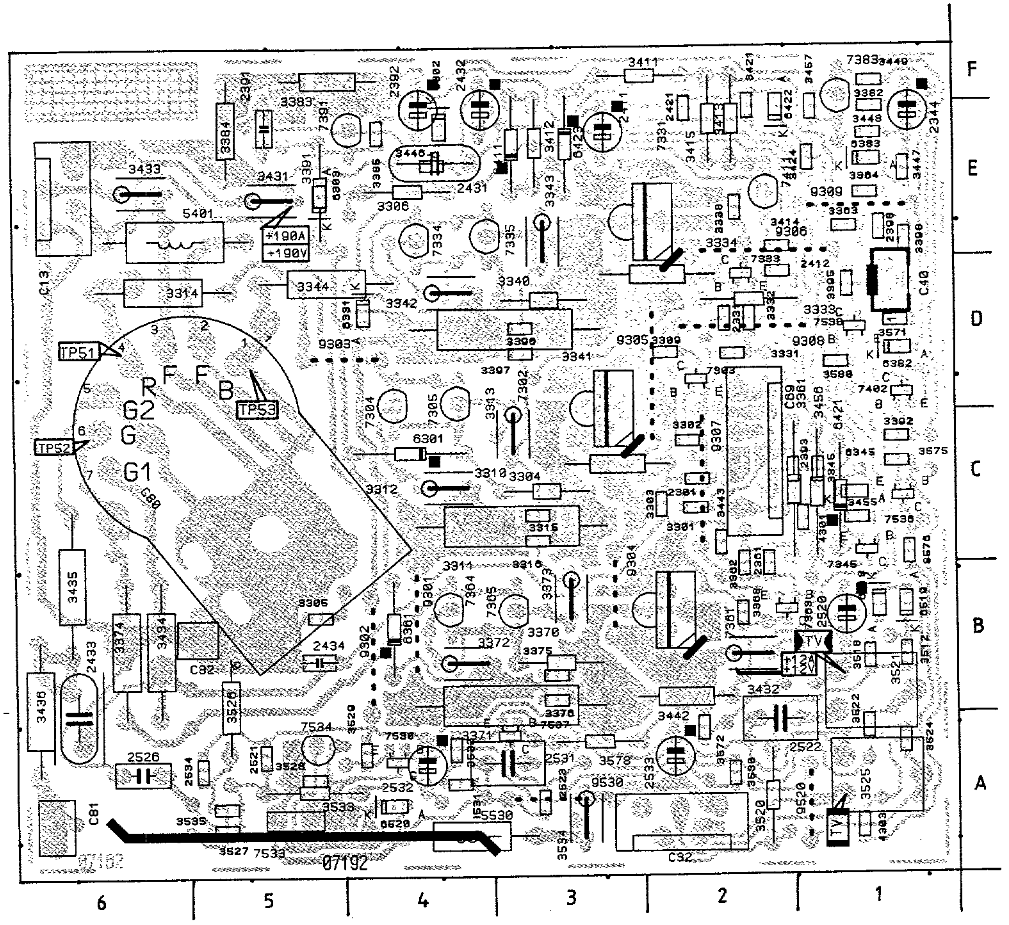
CHASSIS GR2. 4

CL46532061/017.EPAR
141094

1005	A 2
1990	D14
2301	E 5
2331	H 5
2344	I10
2361	N 5
2391	M 5
2392	L 5
2393	B 3
2398	I13
2411	G 3
2412	G 5
2421	K 5
2431	D 4
2432	D 5
2433	G12
2434	E 3
2434	G11
2520	M17
2521	L14
2522	N17
2523	K15
2526	M13
2531	K16
2532	K17
2534	L12
3301	E 4
3302	E 5
3303	E 6
3304	D 6
3306	K 9
3309	D 7
3310	C 8
3311	B 6
3312	B 8
3313	G 9
3314	D10
3315	B 7
3316	B 7
3331	I 5
3332	I 5
3333	I 6
3334	H 6
3338	H 7
3340	G 8
3341	G 6
3342	G 8
3343	I 9
3344	D10
3345	B 4
3361	N 4
3362	N 5
3363	I11
3364	I11
3368	M 7
3370	L 8
3371	L 6
3372	L 8
3373	L 9
3374	D10
3375	L 7
3376	L 7
3382	O 9
3383	L 4
3384	L 4
3385	L 6
3391	L 6
3392	J12
3395	J12
3396	G 7
3397	G 7
3398	I13
3411	F 4
3412	G 4
3413	F 5
3414	G 5
3415	F 5
3421	J 5
3424	J 4
3431	D 3
3432	A 5
3433	E12
3434	E12
3435	F11
3436	F12
3442	M 6
3443	N 6
3446	M 4
3447	I11
3448	I10
3449	K10
3455	B 4
3456	B 5
3457	N10
3512	N18
3518	N18
3520	M18
3521	M17
3522	M16
3524	M14
3525	M14
3526	L13
3527	L13
3528	L15
3529	M15
3530	K15
3531	K17
3532	K17
3533	L14
3534	L18
3535	L13
3571	K13
3572	J13
3575	N12
3576	N13
3578	K14
3580	K13
4301	A 4
4303	N13
5401	E11
5530	L17
6301	D 8
6302	L 9
6303	J 8
6331	I 8
6345	B 4
6361	L 8
6382	J11
6383	J11
6411	G 4
6421	J 5
6422	K 4
6423	F 4
6518	N18
6519	N18
6520	M16
7302	D 7
7303	E 7
7304	C 9
7305	D 9
7331	H 7
7333	I 7
7334	H 9
7335	H 9
7345	B 4
7361	M 7
7363	N 7
7364	L 9
7365	M 9
7383	N 9
7391	L 5
7402	J11
7411	G 5
7530	L15
7533	M16
7534	L16
7536	N12
7537	K15
7538	J12
9301	D 4
9301	O 3
9303	D 9
9304	B 5
9305	B 5
9306	C 5
9307	N 8
9308	J 5
9309	O 3
9530	L17

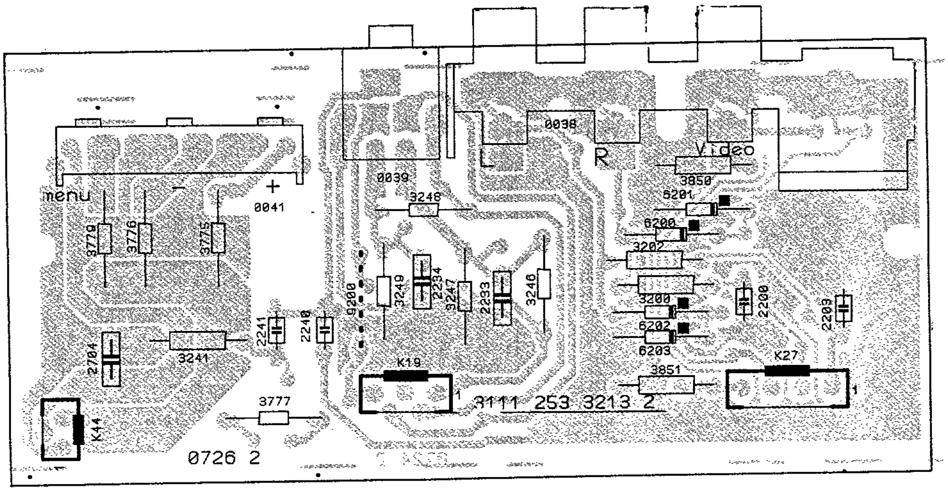
K13
A 4
N13
E11
L17
D 8
L 9
J 8
I 8
B 4
L 8
J11
J11
G 4
J 5
K 4
F 4
N18
N18
M16
D 7
E 7
C 9
D 9
H 7
I 7
H 9
H 9
B 4
M 7
N 7
L 9
M 9
N 9
L 5
J11
G 5
L15
M16
L16
N12
K15
J12
D 4
O 3
D 9
B 5
B 5
C 5
N 8
J 5
O 3
L17

1005 PICTURE TUBE MODULE

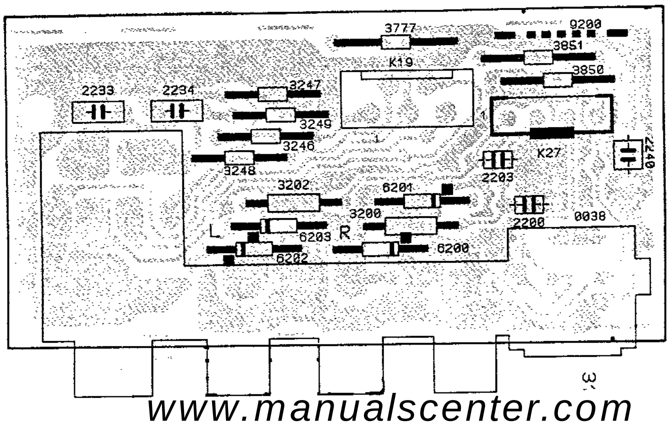

F
E
D
C
B
A
6
5
4
3
2
1
TP51
TP52
TP53
R
G
B
F
F
G2
G
G1
C80
C13
C81
C82
C32
C40
C69
+190A
+190V
+12V
TV
5401
3433
3431
3314
3344
3342
3340
3435
3436
3374
3494
2433
2434
2526
7534
7392
7334
7395
7304
7305
3313
6301
3312
3310
3304
3315
3370
3372
3375
3376
3371
2531
3578
9530
5530
3442
3432
2522
3520
9520
3525
4303
7383
3449
3382
3448
2344
3411
2392
2432
2411
3412
6423
9309
9303
9302
9304
9305
9306
9307
9308
07192

2301	C2	3372	B4	3575	C1	C13	E6		
2331	D2	3373	B3	3576	C1	C32	A2		
2344	E1	3374	B6	3578	A3	C40	D1		
2361	C2	3375	B3	3580	D1	C69	C2		
2391	E5	3376	B3	4301	C1	C80	C5		
2392	E4	3382	E1	4303	A1	C81	A6		
2393	C1	3383	F5	5401	E6	C82	B5		
2398	E1	3384	E5	6301	C4				
2411	E3	3385	E4	6302	E4				
2412	D2	3391	E5	6303	E5				
2421	E2	3392	C1	6331	D4				
2431	E4	3395	D1	6345	C1				
2432	E4	3396	D3	6361	B4				
2433	B6	3397	D3	6382	D1				
2434	B5	3398	E1	6383	E1				
2520	B1	3411	F2	6411	E3				
2521	A5	3412	E3	6421	C1				
2522	A2	3413	E2	6422	E2				
2523	A3	3414	E2	6423	E3				
2526	A6	3415	E2	6518	B1				
2531	A3	3421	F2	6519	B1				
2532	A4	3424	E1	6520	A4				
2533	A2	3431	E5	7302	D3				
2534	A5	3432	B2	7303	D2				
3301	C2	3433	E6	7304	D4				
3302	C2	3434	B6	7305	D4				
3303	C2	3435	B6	7331	E2				
3304	C3	3436	B6	7333	D2				
3305	B5	3442	B2	7334	E4				
3306	E4	3443	C2	7335	E3				
3309	D2	3446	E4	7345	C1				
3310	C3	3447	E1	7361	B2				
3311	C3	3448	E1	7363	B2				
3312	C4	3449	F1	7364	B4				
3313	C3	3455	C1	7365	B3				
3314	D6	3456	C1	7383	F1				
3315	C3	3457	E1	7391	E4				
3316	C3	3512	B1	7402	D1				
3331	D2	3518	B1	7411	E2				
3332	D2	3520	A2	7530	A4				
3333	D2	3521	B1	7533	A5				
3334	D2	3522	A1	7534	A5				
3338	E2	3524	A1	7536	C1				
3340	D3	3525	A1	7537	A3				
3341	D3	3526	B5	7538	D1				
3342	D4	3527	A5	9301	B4				
3343	E3	3528	A5	9302	B4				
3344	D5	3529	A4	9303	D4				
3345	C1	3530	A2	9304	B3				
3361	C1	3531	A4	9305	D2				
3362	C2	3532	A4	9306	E2				
3363	E1	3533	A5	9307	C2				
3364	E1	3534	A3	9308	D2				
3368	B2	3535	A5	9309	E1				
3370	B3	3571	D1	9520	A1				
3371	B3	3572	A2	9530	A3				

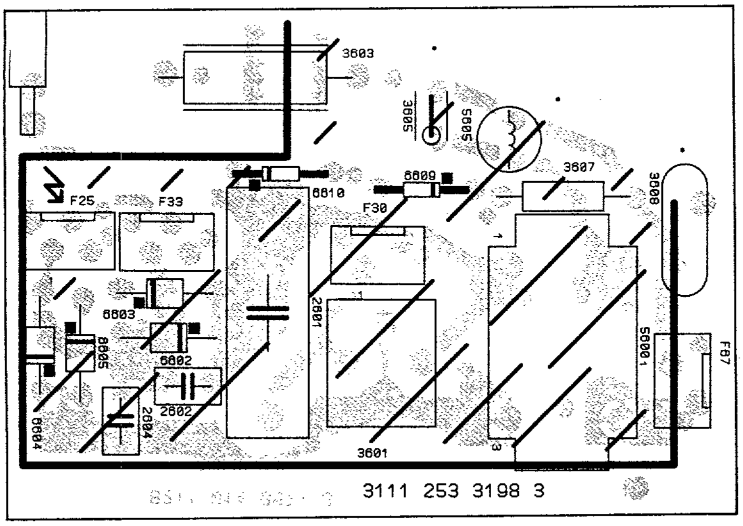
1060 SEPARATE CONTROL MODULE


menu
-
+
0041
0039
0038
L
R
Video
3850
6201
6200
3202
3200
6202
6203
3851
2200
2203
3779
3776
3775
3248
3249
2234
3247
2233
3246
9200
2241
2240
2704
3241
3777
K19
K27
K44
1
3111 253 3213 2
0726 2

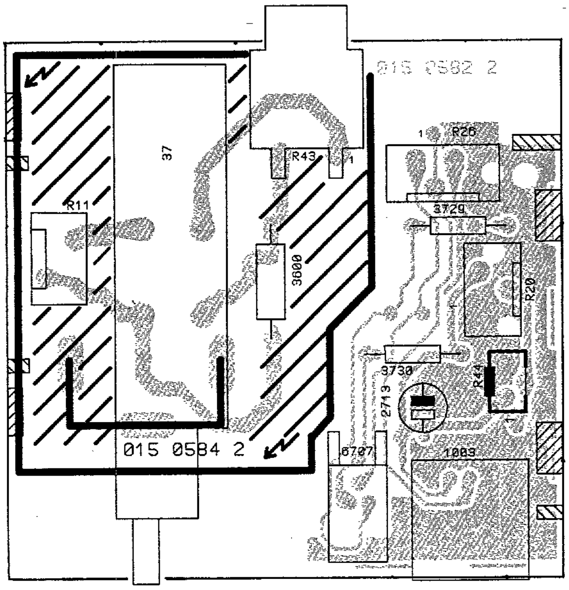
1060 SEPARATE CONTROL MODULE 29"


3777
9200
3851
3850
K19
K27
2233
2234
3247
3249
3246
3248
3202
6201
3200
2203
2240
2200
0038
L
R
6203
6202
6200

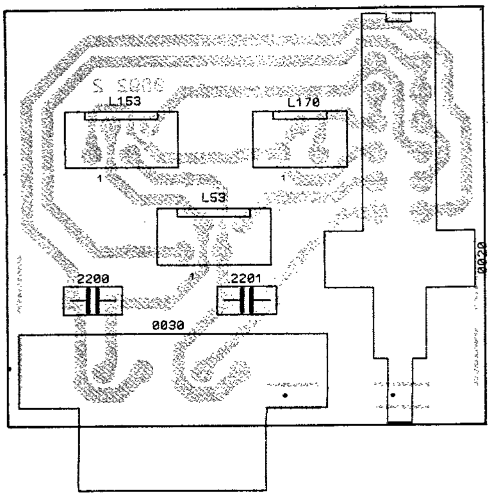
1002 MAINS FILTER MODULE


3603
3605
5605
3607
3608
F25
F33
6610
6609
F30
1
6603
6605
6602
2601
2602
2604
6604
3601
5600
F67
3
3111 253 3198 3

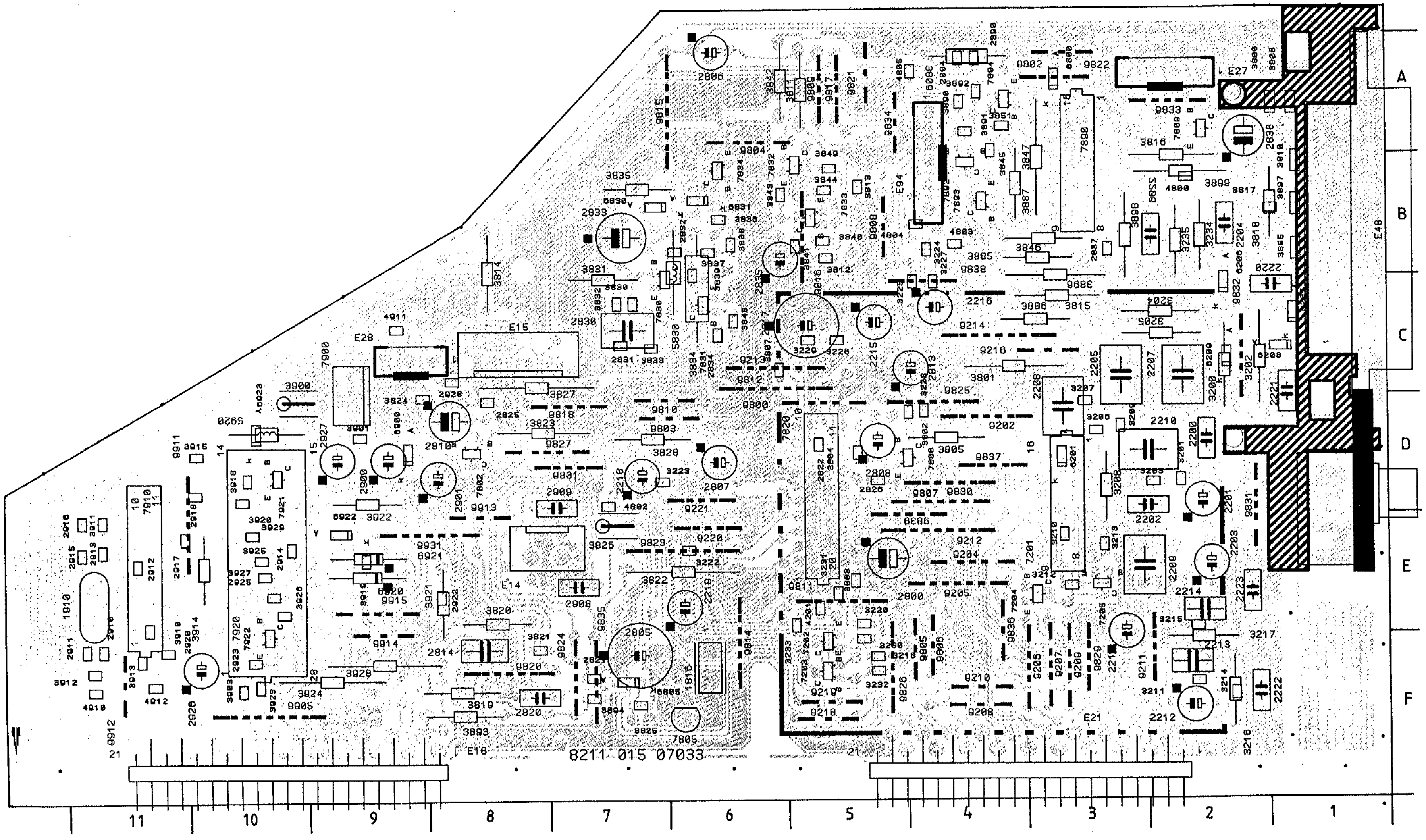
1050 SEPARATE MAINS MODULE


015 0582 2
R26
1
R43
37
R11
3729
3600
R20
3730
2713
R44
015 0584 2
6707
1003

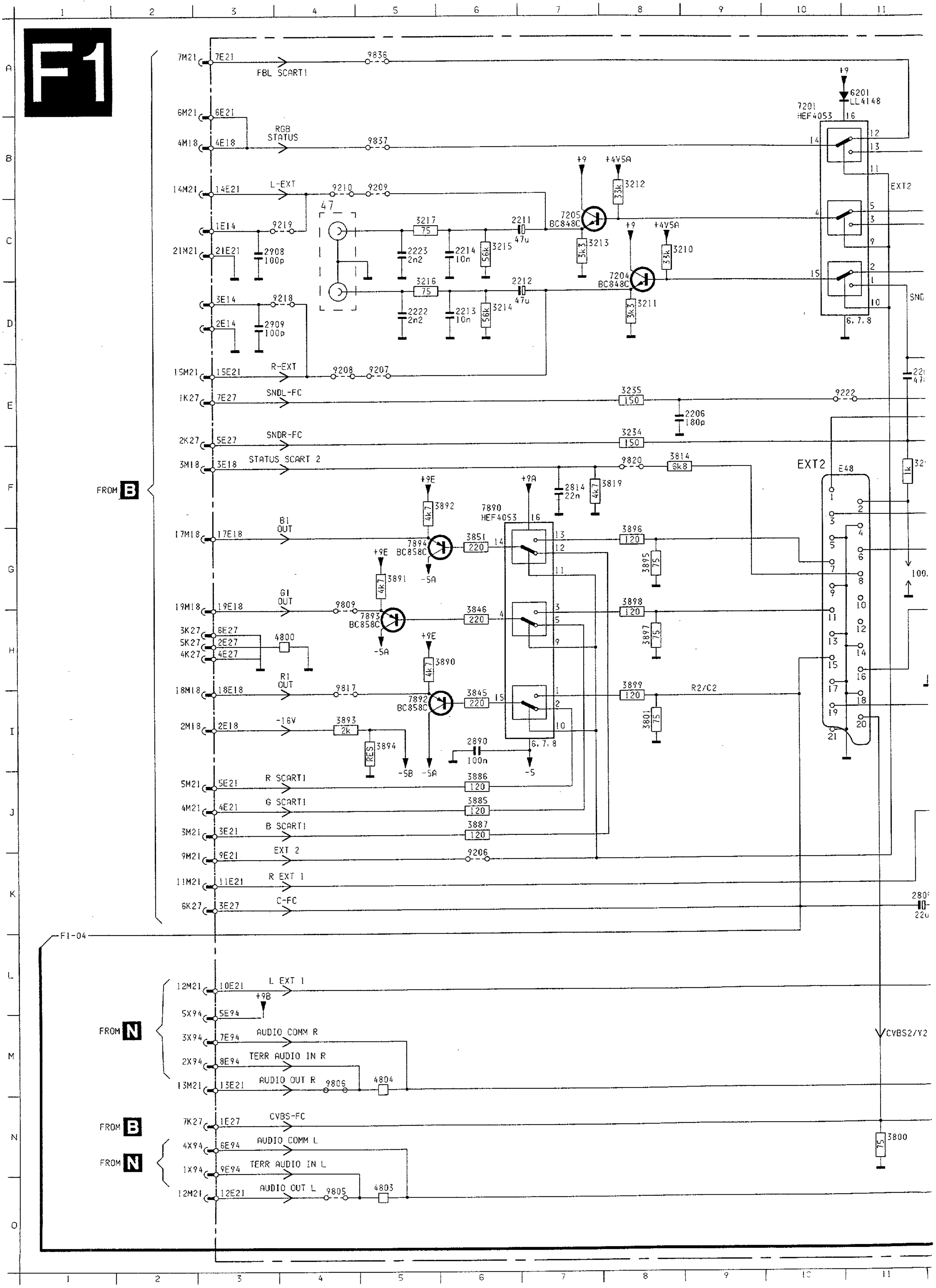
1040 EXTERNAL LOUDSPEAKER MODULE

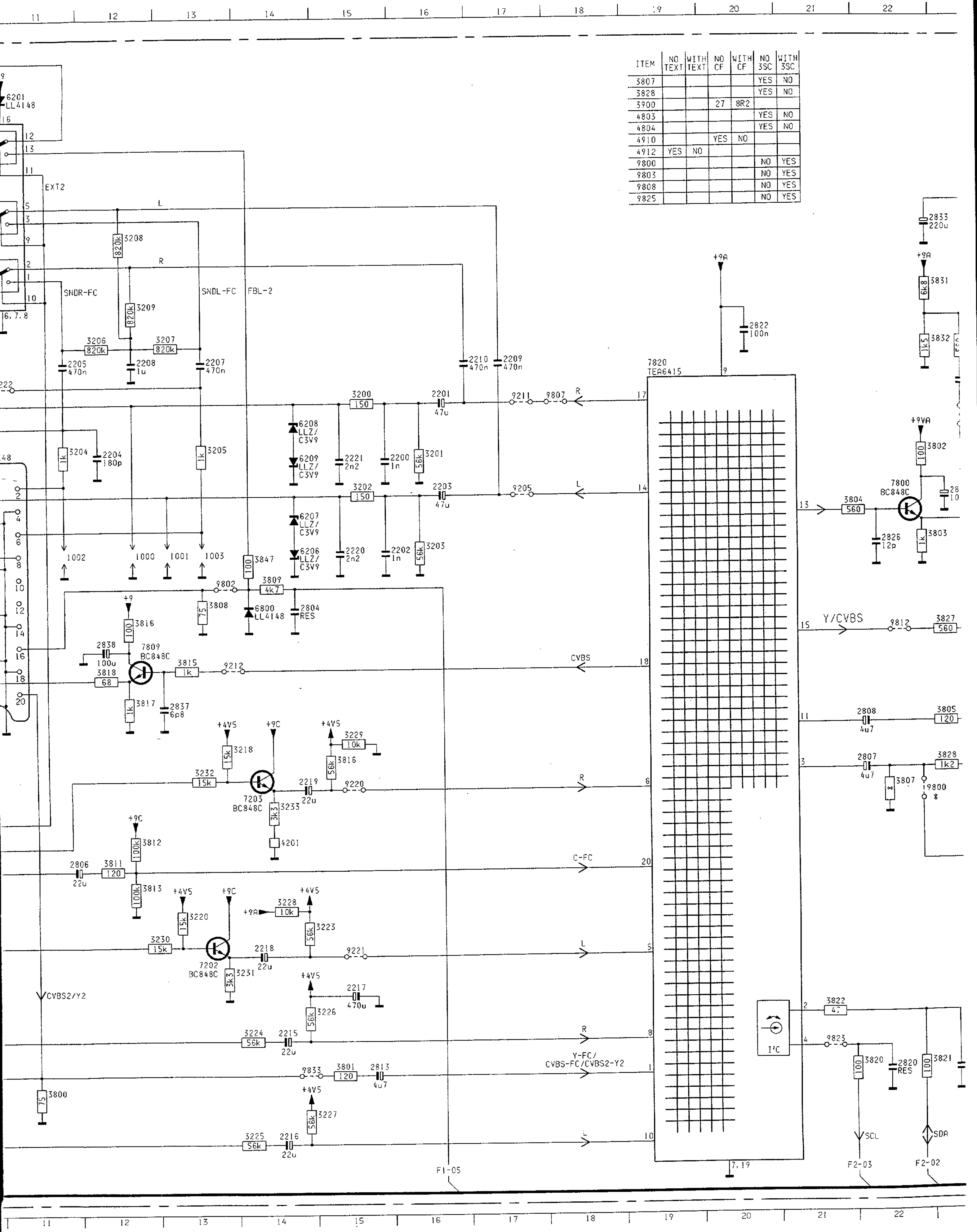

L153
L170
1
L53
2200
2201
0030
0020

1003 TELETEXT MODULE 4/3

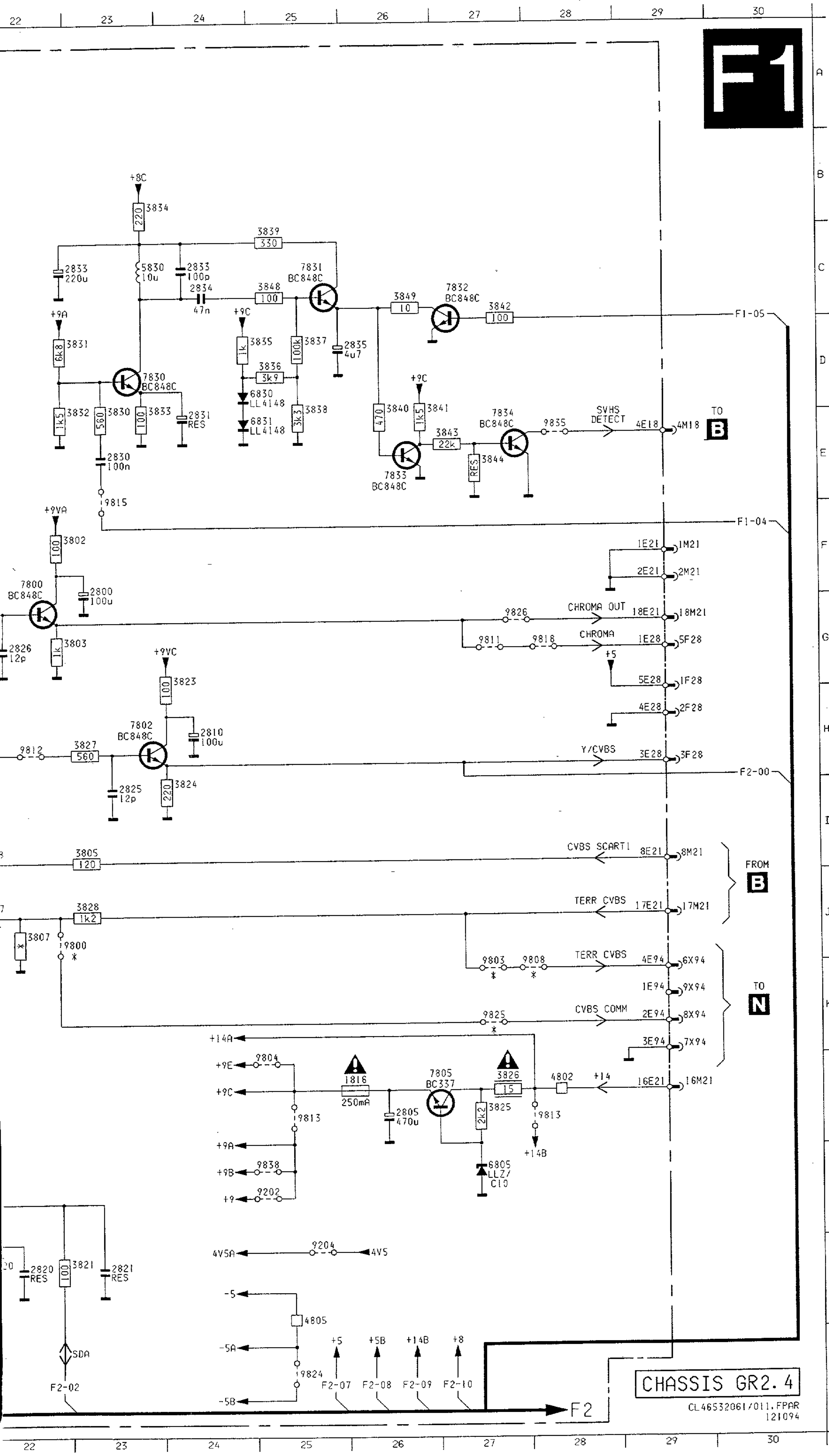


1000 C1	2209 E2	2800 E5	2832 C6	2914 E9	3203 D2	3218 F5	3235 B2	3815 C3	3831 C7	3846 B3	3897 B1	3921 E8	4910 F11	6920 E9	7831 C6	9205 E4	9800 D5	9816 B5	9833 A2	E15 C8
1001 C1	2210 D2	2804 A4	2833 B7	2915 E11	3204 C2	3220 F5	3800 A1	3816 B2	3832 C7	3847 B3	3898 B3	3922 E9	4911 C9	6921 E9	7832 B5	9206 F3	9801 D7	9817 A5	9834 A4	E18 G10
1002 C1	2211 F3	2805 F7	2834 C6	2916 E11	3205 C2	3222 E6	3801 C3	3817 B1	3833 C6	3848 C6	3899 B2	3923 F10	4912 F11	6922 E9	7833 B5	9207 F3	9802 A3	9818 D7	9835 F7	E21 G3
1003 C1	2212 F2	2807 D6	2835 C5	2917 E10	3206 D3	3223 D6	3802 D4	3818 B1	3834 C6	3849 B5	3900 D9	3924 F9	5830 C6	6923 D10	7834 B6	9208 F4	9803 D6	9820 F8	9836 F4	E27 A2
1816 F6	2213 F2	2808 D5	2837 C3	2918 E10	3207 D3	3224 C4	3803 E5	3819 F8	3835 B7	3851 B4	3901 D9	3925 E10	5920 D10	7201 E3	7890 B3	9209 F3	9804 B6	9821 A5	9837 D4	E28 C8
1910 E11	2214 F2	2810 D8	2838 B2	2920 F11	3208 E3	3225 C4	3804 D5	3820 F8	3836 B6	3885 C3	3903 F10	3926 F10	6201 D3	7202 F5	7892 B4	9210 F4	9805 F4	9822 A3	9838 C4	E48 C1
2200 D2	2215 C5	2813 D4	2890 A4	2922 E8	3209 D3	3226 C5	3805 D4	3821 F7	3837 C6	3886 C3	3910 F11	3927 E10	6206 C2	7203 F5	7893 B4	9211 F2	9806 F4	9823 E6	9839 E4	E94 B4
2201 E2	2216 C4	2814 F8	2900 D9	2923 F10	3210 E3	3227 C4	3807 D5	3822 E6	3838 B6	3887 B3	3911 E11	3928 F9	6207 C1	7204 E3	7894 A3	9212 E4	9807 E4	9824 F7	9905 F10	
2202 E2	2217 C5	2820 F7	2901 D8	2925 E10	3211 F2	3228 D4	3808 A1	3823 D7	3839 C6	3890 A4	3912 F11	3929 E10	6208 C1	7205 E3	7900 D9	9213 D5	9808 B5	9825 D4	9911 E10	
2203 E2	2218 D7	2821 F7	2908 E7	2926 F10	3212 E3	3229 C5	3809 A4	3824 D8	3840 B5	3891 B4	3913 F11	4201 F5	6209 C2	7800 D4	7910 E11	9214 C4	9809 A5	9826 F4	9912 F11	
2204 B2	2219 F6	2822 D5	2909 E7	2927 D9	3213 E3	3230 F5	3810 B1	3825 F7	3841 C5	3892 A4	3914 E10	4800 B2	6800 A3	7802 D8	7920 E10	9216 C3	9810 D6	9827 D7	9913 E8	
2205 D3	2220 C1	2825 D8	2910 F11	2928 D8	3214 F2	3231 E5	3811 A5	3826 E7	3842 A5	3893 F8	3915 D10	4802 E7	6805 F7	7805 F6	7921 D10	9218 F5	9811 E5	9829 F3	9914 F9	
2206 B2	2221 D1	2826 D5	2911 F11	3200 C2	3215 F2	3232 F5	3812 C5	3827 D7	3843 B5	3894 F7	3918 D10	4803 B4	6830 B6	7809 B2	7922 F10	9219 F5	9812 D5	9830 D4	9915 F9	
2207 D2	2222 F1	2830 C7	2912 E11	3201 D2	3216 F2	3233 F5	3813 B5	3828 D6	3844 B5	3895 C1	3919 E9	4804 B4	6831 B6	7820 E5	9202 D4	9220 E6	9814 F6	9831 E1	9931 E8	
2208 D3	2223 E1	2831 C7	2913 E11	3202 C1	3217 F2	3234 B2	3814 C8	3830 C7	3845 B4	3896 C3	3920 E10	4805 A4	6900 D8	7830 C6	9204 E4	9221 E6	9815 A6	9832 C2	E14 E7	


F1
FROM B
FROM N
FROM B
FROM N
7M21 7E21 FBL SCART1 9836
6M21 6E21
4M18 4E18 RGB STATUS 9837
14M21 14E21 L-EXT 9210 9209
1E14 9219
21M21 21E21 2908 100p
3E14 9218
2E14 2909 100p
15M21 15E21 R-EXT 9208 9207
47
3217 75
3216 75
2223 2n2
2222 2n2
2214 10n
2213 10n
3215 56k
3214 56k
2211 47u
2212 47u
+9
+4V5A
3212 33k
7205 BC848C
3213 3k3
7204 BC848C
3211 3k3
3210 33k
1K27 7E27 SNDL-FC 3235 150 9222
2206 180p
2K27 5E27 SNDR-FC 3234 150
3M18 3E18 STATUS SCART 2 9820 3814 6k8
2814 22n
3819 4k7
+9E 3892 4k7
+9A
7890 HEF4053
17M18 17E18 B1 OUT
7894 BC858C
3851 220
-5A
+9E 3891 4k7
19M18 19E18 G1 OUT 9809
7893 BC858C
3846 220
3K27 6E27
5K27 2E27
4K27 4E27
4800
+9E 3890 4k7
18M18 18E18 R1 OUT 9817
7892 BC858C
3845 220
2M18 2E18 -16V 3893 2k
3894 RES
-5B -5A
2890 100n
-5
6, 7, 8
3896 120
3895 75
3898 120
3897 75
3899 120
3801 75
R2/C2
5M21 5E21 R SCART1 3886 120
4M21 4E21 G SCART1 3885 120
3M21 3E21 B SCART1 3887 120
9M21 9E21 EXT 2 9206
11M21 11E21 R EXT 1
6K27 3E27 C-FC
F1-04
12M21 10E21 L EXT 1
+9B
5X94 5E94
3X94 7E94 AUDIO COMM R
2X94 8E94 TERR AUDIO IN R
13M21 13E21 AUDIO OUT R 9806 4804
7K27 1E27 CVBS-FC
4X94 6E94 AUDIO COMM L
1X94 9E94 TERR AUDIO IN L
12M21 12E21 AUDIO OUT L 9805 4803
+9
6201 LL4148
7201 HEF4053
EXT2
SND
EXT2
E48
100.
CVBS2/Y2
3800 75
280
22u
1k
A B C D E F G H I J K L M N O
1 2 3 4 5 6 7 8 9 10 11

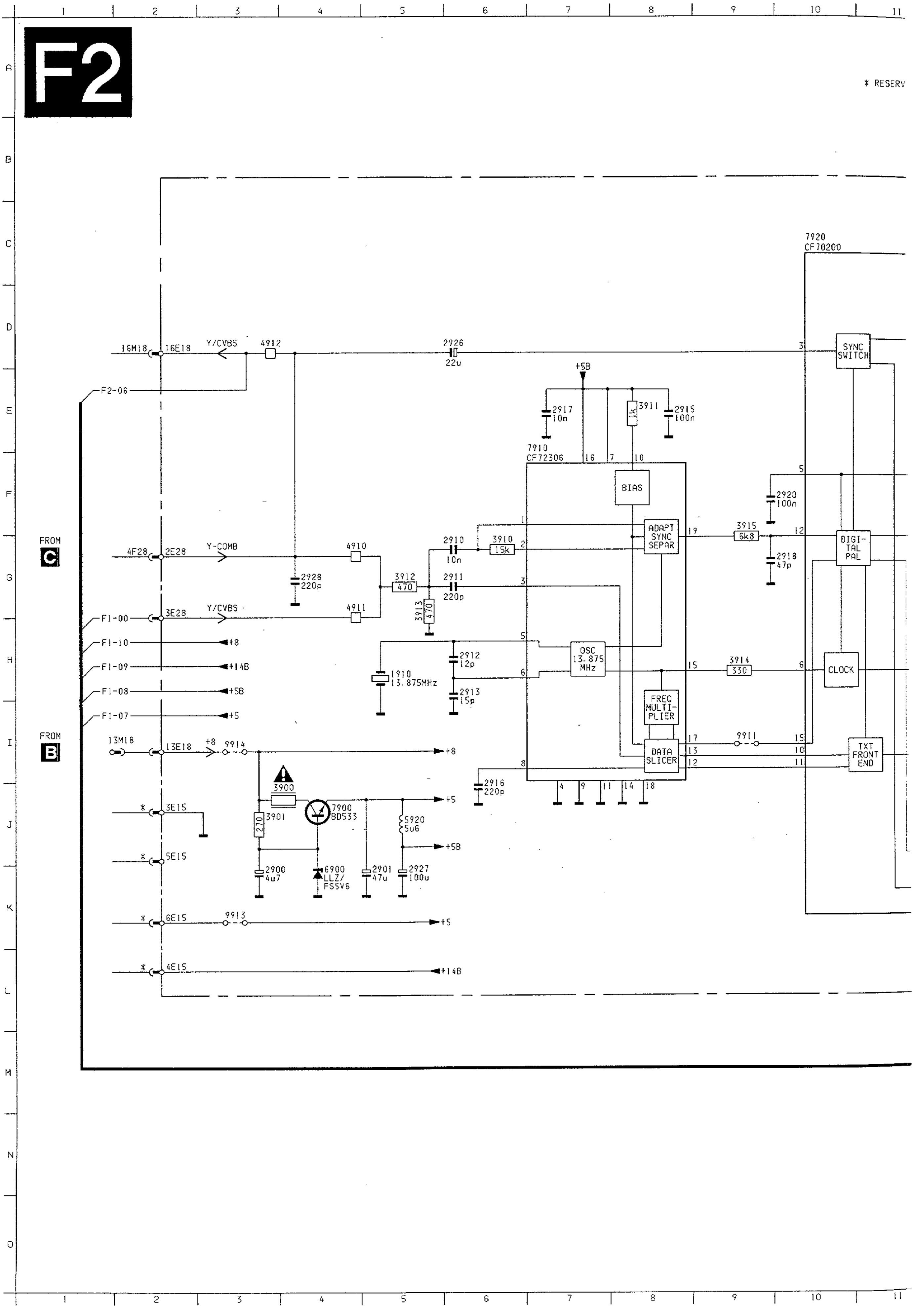

11
12
13
14
15
16
17
18
19
20
21
22
6201
LL4148
EXT2
SNDR-FC
SNDL-FC
FBL-2
L
R
3208
820k
3209
820k
3206
820k
3207
820k
2205
470n
2208
1u
2207
470n
2210
470n
2209
470n
3200
150
2201
47u
9211
9807
3204
1k
2204
180p
3205
1k
6208
LLZ/
C3V9
6209
LLZ/
C3V9
2221
2n2
2200
1n
3201
56k
3202
150
2203
47u
9205
6207
LLZ/
C3V9
6206
LLZ/
C3V9
2220
2n2
2202
1n
3203
56k
1002
1000
1001
1003
3847
100
9802
3809
4k7
2804
RES
3808
75
6800
LL4148
+9
3816
100
2838
100u
7809
BC848C
3818
68
3815
1k
9212
3817
1k
2837
6p8
CVBS
+4V5
+9C
3218
15k
3232
15k
7203
BC848C
3233
3k3
4201
2219
22u
9220
3229
10k
3816
56k
+9C
3812
100k
2806
22u
3811
120
3813
100k
C-FC
3220
15k
3230
15k
7202
BC848C
3231
3k3
2218
22u
9221
+9A
3228
10k
3223
56k
2217
470u
3226
56k
CVBS2/Y2
3224
56k
2215
22u
9833
3801
120
2813
4u7
Y-FC/
CVBS-FC/CVBS2-Y2
3227
56k
3225
56k
2216
22u
3800
75
F1-05
+9A
2822
100n
7820
TEA6415
9
17
14
18
6
20
5
8
1
10
7,19
13
15
11
3
2
4
I²C
Y/CVBS
9812
3827
560
3804
560
2826
12p
7800
BC848C
3803
1k
+9VA
3802
100
2808
4u7
3805
120
2807
4u7
3828
1k2
3807
19800
*
3822
47
9823
3820
100
2820
RES
3821
100
SCL
SDA
F2-03
F2-02
2833
220u
3831
6k8
3832
1k5

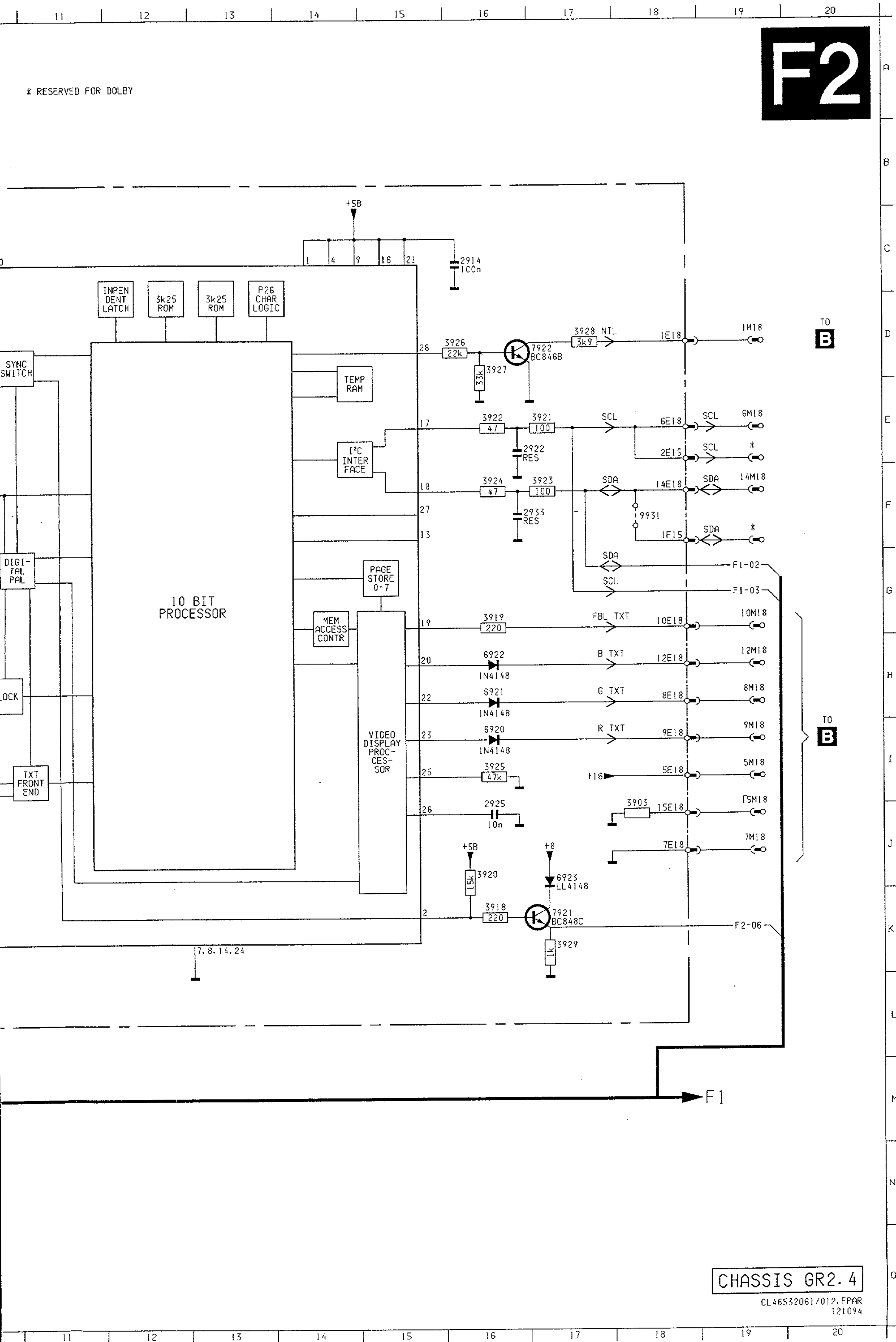
ITEM	NO TEXT	WITH TEXT	NO CF	WITH CF	NO 3SC	WITH 3SC
3807					YES	NO
3828					YES	NO
3900			27	8R2		
4803					YES	NO
4804					YES	NO
4910			YES	NO		
4912	YES	NO				
9800					NO	YES
9803					NO	YES
9808					NO	YES
9825					NO	YES


F1
22
23
24
25
26
27
28
29
30
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
+8C
3834
220
3839
330
2833
220u
5830
10u
2833
100p
2834
47n
3848
100
7831
BC848C
3849
10
7832
BC848C
3842
100
F1-05
+9A
3831
6k8
+9C
3835
1k
100k
3837
2835
4u7
3836
3k9
7830
BC848C
6830
LL4148
6831
LL4148
3832
1k5
560
3830
100
3833
2831
RES
3k3
3838
470
3840
+9C
1k5
3841
7834
BC848C
9835
SVHS
DETECT
4E18
4M18
TO
B
3843
22k
RES
3844
7833
BC848C
2830
100n
9815
F1-04
+9VA
3802
100
1E21
1M21
2E21
2M21
7800
BC848C
2800
100u
9826
CHROMA OUT
18E21
18M21
9811
9818
CHROMA
1E28
5F28
2826
12p
3803
1k
+5
5E28
1F28
+9VC
3823
100
4E28
2F28
7802
BC848C
2810
100u
9812
3827
560
Y/CVBS
3E28
3F28
F2-00
2825
12p
220
3824
3805
120
CVBS SCART1
8E21
8M21
FROM
B
3828
1k2
TERR CVBS
17E21
17M21
3807
9800
9803
9808
TERR CVBS
4E94
6X94
1E94
9X94
TO
N
9825
CVBS COMM
2E94
8X94
3E94
7X94
+14A
+9E
9804
1816
250mA
7805
BC337
3826
15
4802
+14
16E21
16M21
+9C
2805
470u
2k2
3825
9813
9813
+14B
+9A
+9B
9838
6805
LLZ/
C10
+9
9202
2820
RES
3821
100
2821
RES
4V5A
9204
4V5
-5
4805
SDA
-5A
+5
+5B
+14B
+8
9824
F2-02
F2-07
F2-08
F2-09
F2-10
-5B
F2
CHASSIS GR2.4
CL46532061/011.FPAR
121094

1000	G12	3828	J23
1001	G13	3830	D23
1002	G11	3831	D23
1003	G13	3832	D23
1816	L26	3833	D23
2200	F16	3834	B23
2201	E16	3835	D25
2202	G16	3836	D25
2203	F16	3837	D25
2204	F12	3838	D25
2205	E11	3839	C25
2206	E 9	3840	D26
2207	E13	3841	D26
2208	E12	3842	C27
2209	E17	3843	E27
2210	E17	3844	E27
2211	C 7	3845	I 6
2212	D 7	3846	H 6
2213	D 6	3847	G14
2214	C 6	3848	C25
2215	M14	3849	C26
2216	O14	3851	G 6
2217	M15	3885	J 6
2218	L14	3886	J 6
2219	J14	3887	J 6
2220	G15	3890	H 5
2221	F15	3891	G 5
2222	D 5	3892	F 5
2223	C 5	3893	I 4
2800	F23	3894	I 5
2804	H14	3895	G 8
2805	L26	3896	G 8
2806	K11	3897	H 8
2807	J22	3898	G 8
2808	I22	3899	I 8
2810	H24	4201	K14
2813	N15	47	C 4
2814	F 7	4802	L28
2820	N22	4803	O 5
2821	N23	4804	M 5
2822	D20	4805	N25
2825	I23	5830	C23
2826	G22	6201	A11
2830	E23	6206	G14
2830	E23	6207	G14
2831	E24	6208	F14
2833	C23	6209	F14
2833	C24	6800	H14
2834	C24	6805	M27
2835	D26	6830	D25
2837	I13	6831	E25
2838	H12	7201	A10
2890	I 6	7202	L13
2908	C 3	7203	J14
2909	D 3	7204	D 8
3200	E15	7205	C 7
3201	F16	7800	F22
3202	F15	7802	H23
3203	G16	7805	L26
3204	F11	7809	H12
3205	F13	7820	E19
3206	D12	7830	D23
3207	D13	7831	C25
3208	C12	7832	C27
3209	D12	7833	E26
3210	C 8	7834	E27
3211	D 8	7890	F 6
3212	B 8	7892	I 5
3213	C 7	7893	H 5
3214	D 6	7894	G 5
3215	C 6	9202	M25
3216	D 5	9204	N25
3217	C 5	9205	F17
3218	J13	9206	K 6
3220	L13	9207	E 5
3223	L14	9208	E 4
3224	M14	9209	B 5
3225	O14	9210	B 4
3226	M14	9211	E17
3227	N14	9212	I13
3228	L14	9218	D 4
3229	J15	9219	C 4
3230	L12	9220	J15
3231	L13	9221	L15
3232	J13	9222	E11
3233	J14	9800	J22
3234	E 8	9802	H13
3235	E 8	9803	K27
3800	N11	9804	L25
3801	I 8	9805	O 4
3801	N15	9806	M 4
3802	F22	9807	E18
3803	G22	9808	K28
3804	G21	9809	H 4
3805	I23	9811	G27
3807	J22	9812	H22
3808	H13	9813	L25
3809	G14	9813	L28
3811	K12	9815	E23
3812	K12	9817	I 4
3813	K12	9818	G28
3814	F 8	9820	F 8
3815	I13	9823	N21
3816	H12	9824	O25
3816	J15	9825	K27
3817	I12	9826	G27
3818	I12	9833	N14
3819	F 8	9835	E28
3820	N22	9836	A 5
3821	N22	9837	B 5
3822	M21	9838	M25
3823	G24	E48	F11
3824	H24		
3825	L27		
3826	L27		
3827	H23		

Teletext


F2
* RESERV
FROM C
FROM B
16M18
16E18
Y/CVBS
4912
2926
22u
F2-06
+5B
2917
10n
3911
1k
2915
100n
7910
CF72306
BIAS
ADAPT SYNC SEPAR
OSC 13.875 MHz
FREQ MULTI-PLIER
DATA SLICER
4F28
2E28
Y-COMB
4910
2928
220p
2910
10n
3910
15k
3912
470
3913
470
2911
220p
F1-00
3E28
Y/CVBS
4911
F1-10
+8
F1-09
+14B
F1-08
+5B
F1-07
+5
1910
13.875MHz
2912
12p
2913
15p
2916
220p
13M18
13E18
+8
9914
+8
3900
7900
BD533
+5
3901
270
5920
5u6
+5B
2900
4u7
6900
LLZ/
F5V6
2901
47u
2927
100u
3E15
5E15
6E15
9913
+5
4E15
+14B
7920
CF70200
SYNC SWITCH
3915
6k8
2920
100n
2918
47p
DIGI-TAL PAL
3914
330
CLOCK
9911
TXT FRONT END


F2
* RESERVED FOR DOLBY
+5B
1 4 9 16 21
2914 100n
INPEN DENT LATCH
3k25 ROM
3k25 ROM
P26 CHAR LOGIC
SYNC SWITCH
TEMP RAM
I²C INTER FACE
DIGI-TAL PAL
10 BIT PROCESSOR
PAGE STORE 0-7
MEM ACCESS CONTR
VIDEO DISPLAY PROC-CES-SOR
LOCK
TXT FRONT END
28 3926 22k
3927 33k
7922 BC846B
3928 NIL 3k9
1E18 1M18
TO B
17 3922 47 3921 100 SCL 6E18 SCL 6M18
2922 RES
2E15 SCL *
18 3924 47 3923 100 SDA 14E18 SDA 14M18
2933 RES
9931
27
13
1E15 SDA *
SDA F1-02
SCL F1-03
19 3919 220 FBL TXT 10E18 10M18
20 6922 1N4148 B TXT 12E18 12M18
22 6921 1N4148 G TXT 8E18 8M18
23 6920 1N4148 R TXT 9E18 9M18
25 3925 47k
+16 5E18 5M18
26 2925 10n
3903 15E18 15M18
7E18 7M18
+5B 3920 15k
+8 6923 LL4148
2 3918 220
7921 BC848C
F2-06
3929 1k
7,8,14,24
F1
11 12 13 14 15 16 17 18 19 20
A B C D E F G H I J K L M N O
CHASSIS GR2.4
CL46532061/012.FPAR 121094

1910	H 5
2900	K 3
2901	K 5
2910	G 6
2911	G 6
2912	H 6
2913	H 6
2914	C16
2915	E 8
2916	J 6
2917	E 7
2918	G 9
2920	F 9
2922	E17
2925	J17
2926	D 6
2927	K 5
2928	G 3
2933	F17
3900	J 4
3901	J 3
3903	J18
3910	G 6
3911	E 8
3912	G 5
3913	G 5
3914	H 9
3915	F 9
3918	K17
3919	G17
3920	J16
3921	E17
3922	E17
3923	F17
3924	F17
3925	I17
3926	D16
3927	D16
3928	D18
3929	K17
4910	G 4
4911	G 4
4912	D 3
5920	J 5
6900	K 4
6920	I17
6921	H17
6922	H17
6923	J17
7900	J 4
7910	F 6
7920	C10
7921	K17
7922	D17
9911	I 9
9913	K 3
9914	I 3
9931	F18

Teletext

The TXT-decoder is integrated in the Euro-module.

The TXT-decoder can process the following systems:

- World Teletext System (WST)
- BBC system: FLOF (full level one feature)
- German system: TOP (table of Pages).

The TXT-decoder has a memory of 8 pages with the objective to decrease the waiting time.
The content of the memory depends on the system.

- WST with pages without sub-codes: page -1, +1, +2, +3, +4, page last received, table of contents + page displayed.

- WST with pages with sub-codes: page -1, +1, +2, next sub-page, next +1 sub-page, page last received + table of contents.

- FLOF: 4 pages linked to the coloured buttons (red, green, yellow, blue) page -1, page last displayed and table of contents.

- TOP: basic Top table, page +1, 1 or 2 subsequent group, 2 or 3 subsequent blocks, or page +1, +2.

The 'Page Look Up Table' (PLUT) is built up immediately in the 3 systems after switch-on.
The Plut ensures that only the transmitted pages are stored in the memory.

The TXT circuit consists of 2 ICs:

- IC 7910: Teletext Data Slicer: CF 72306.
- IC 7920: Universal Teletext Decoder: 'Eurotext': CF 70200.

The Teletext Data Slicer: CF 72306

The CF 72306 IC sees to:
- Sync. separation
- Teletext data processing
- Data clock regeneration
- Transfer of clock, data and composite sync. signals to the digital IC teletext decoder.

The sync. separator slicing level is adjustable, so that it can process a whole series of video amplitudes and disturbed signals.

The data slicer uses an adjustable signal recognition and clock phase algorithm, so that it can work in a broad area of clock run-in amplitudes.

- The IC has 3 video inputs (pins 1, 2, 3). Pins 1, 2 are used for sync. processing and pin 3 is used for taking TXT information from the video.
  Resistor 3910 forms LPF (Low Pass Filter) with capacity in the IC for the removal of the high frequencies at the sync. level.
  Resistors R 3912, R 3913 are adaptations of the level from 2V to 1V pp.

The TXT clock of 6.937MHz is conducted from the 13.875MHz oscillator frequency. The black level is stocked on pin 8 (C REF) via C 2916.
The frequency is raised to 69MHz via a 'Frequency multiplier', to enable the processing of all signals in the IC.

The 'OSCOUT' (pin 15) transfers the 13.876 MHz to the TXT-decoder.
R 3914 is present in order to avoid irradiation in the MF part.
During the VBi the data slicer is activated via 'WIND', so that the TXT data can come out on pin 13.
The sync. signal (pin 19) is sent to pin 12 TXT decoder via LDF filter (R 3915, C 2918).

Universal Teletext decoder 'Eurotext': CF 70200

Digital IC for the benefit of decoding the world standard systems:
- 8 pages of memory
- automatic detection of WST, FLOF, or TOP
- Packet 26 flicker-free character processing.

The TDATA, T.CIK and composite sync. of the data slicer are offered to inputs 10, 11 and 12.
The IC is connected to the I^{2}C line via 16 (data) and 17 (clock).

Via Flag 2 (28) the NIL signal is offered to prevent the text from flickering on the screen.

The Reset is effected via C 2920 on pin 5.

Via diodes 6920, 6921, 6922 the RGB outputs are transmitted to the TDA 4780 together with the blanking signal (pin 19).

The diodes prevent 'blooming' of the text, as well as the level of the OSD being pulled down.

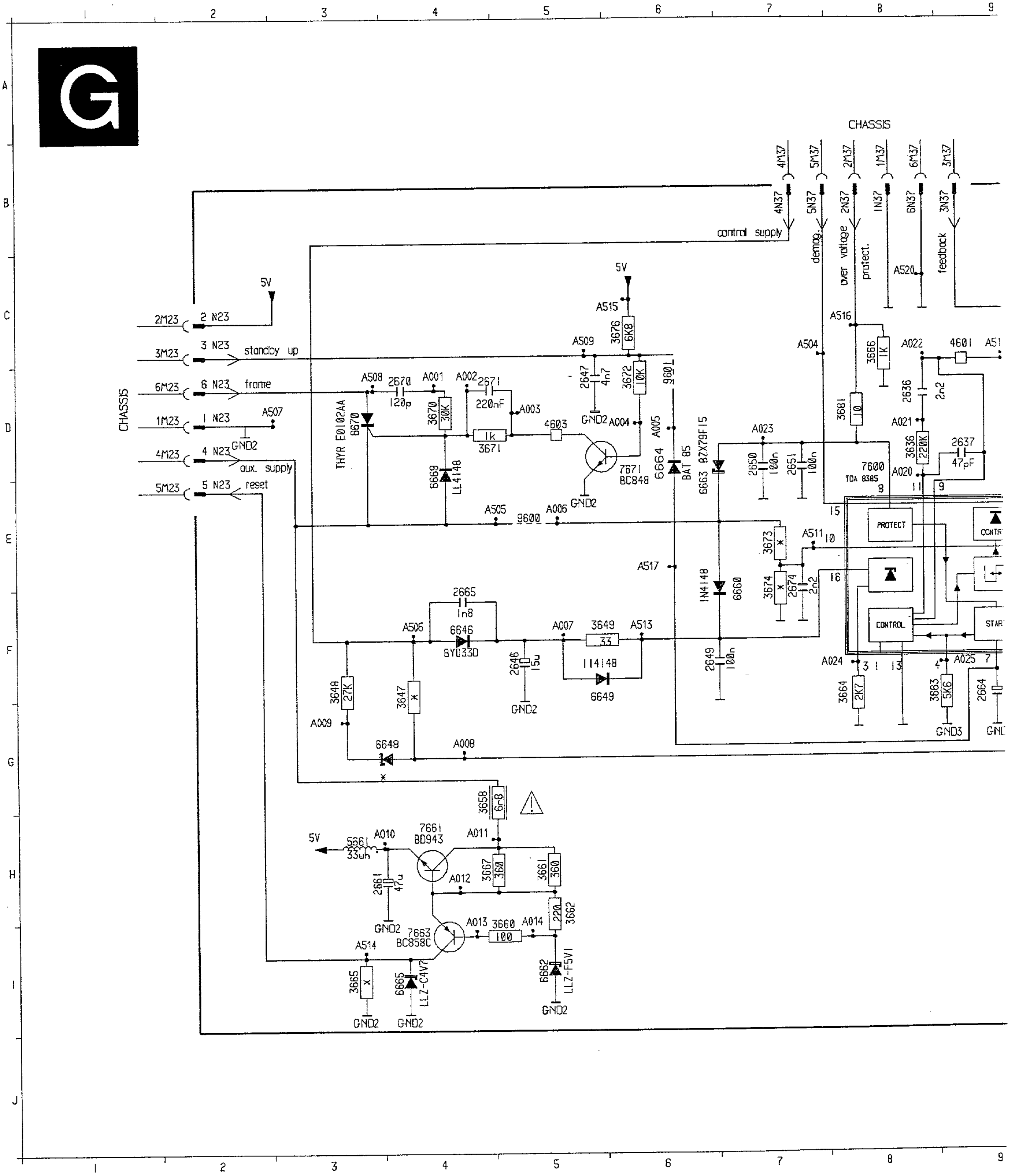
The amplitude of the output signals is determined by C 2925 (REF) and R 3925 (RGB set).

Pin 2 (sync. out of CSB) is the output of the internal switch, which transmits either the composite sync. signal of the internal sync. generator or the video input inlet when picture information is shown (mixed mode - subtitling).

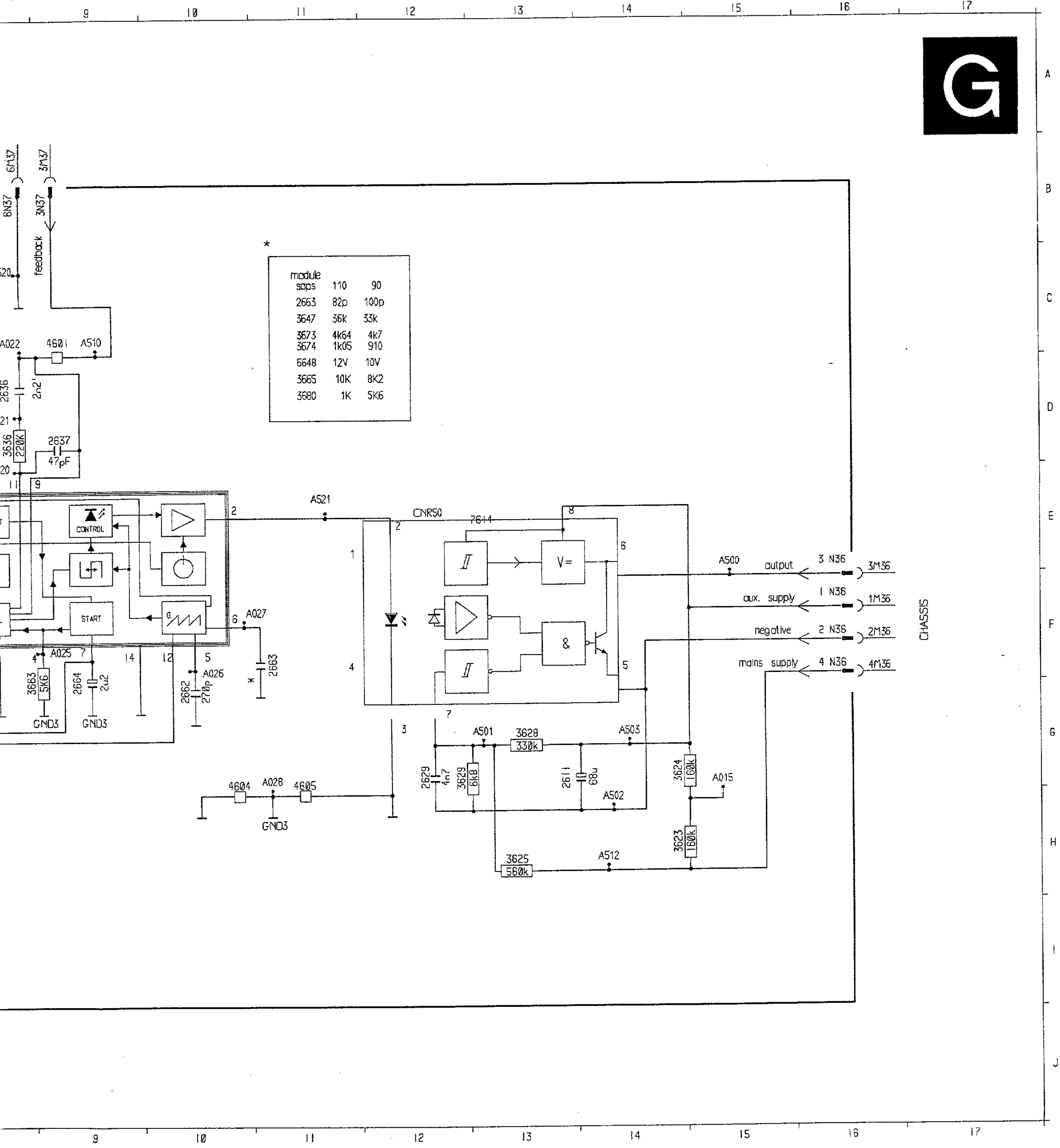
Via the clock in (pin 6) 13.876 MHz is received from the data slicer.
Via PLL the pulses in the TXT-decoder are synchronized to the sync. of the video signal.
Character generator is available in the IC.
The internal ROM controls the decoding and the choice of the display.
In the internal RAM 8 pages can be stored.

Sops controle module

2611	G13	2647	D 5	2662	G10	2671	D 4	3628	G13	3649	F 5	3663	F 8	3670	D 4	3676	C 6	4604	G10	6649	G 5	6665	I 4	7661	H 4
2629	G12	2649	F 6	2663	F11	2674	F 7	3629	G12	3658	G 4	3664	F 8	3671	D 4	3680	I10	4605	G11	6660	F 7	6669	D 4	7663	I 4
2636	D 8	2650	D 7	2664	F 9	3623	H14	3636	D 8	3660	I 5	3665	I 3	3672	D 6	3681	D 8	5661	H 3	6662	I 5	6670	D 3	7671	D 6
2637	D 9	2651	D 7	2665	F 4	3624	G14	3647	F 4	3661	H 5	3666	C 8	3673	E 7	4601	C 9	6646	F 4	6663	E 6	7600	D 8	9600	E 5
2646	F 5	2661	H 3	2670	D 4	3625	H13	3648	F 3	3662	H 5	3667	H 4	3674	F 7	4603	D 5	6648	G 4	6664	D 6	7614	E14	9601	D 6


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
H
I
J
G
CHASSIS
4M37
5M37
2M37
1M37
6M37
3M37
4N37
5N37
2N37
1N37
6N37
3N37
control supply
demag.
over voltage
protect.
feedback
A520
A516
A504
3686 1K
A022
4601
A51
2636 2n2
A021
3636 220K
2637 47pF
A020
3681 10
A023
2650 100n
2651 100n
7600 TDA 8385
8
11
9
15
PROTECT
CONTR
10
16
CONTROL
STAR
A511
3673
3674
2674 2n2
A024
3 1 13
4
A025 7
3664 2K7
3663 5K6
2664
GND3
GND
CHASSIS
2M23
2 N23
5V
3M23
3 N23
standby up
6M23
6 N23
frame
1M23
1 N23
A507
GND2
4M23
4 N23
aux. supply
5M23
5 N23
reset
5V
A515
3676 6K8
A509
2647 4n7
3672 10K
9601
GND2
A004
A005
6664 BAT 85
6663 BZX79F15
A508
2670 120p
A001
A002
2671 220nF
A003
THYR EO102AA 6670
3670 30K
1k 3671
4603
7671 BC848
GND2
6669 LL4148
A505
9600
A006
A517
1N4148
6660
2649 100n
2665 1n8
A506
6646 BYD33D
A007
3649 33
A513
2646 15u
GND2
114148
6649
3648 27K
3647
A009
6648
A008
3658 6r8
5V
5661 33uh
A010
7661 BD943
A011
2661 47u
A012
3667 360
3661 360
GND2
7663 BC858C
A013
3660 100
A014
3662 220
A514
3665
6665 LLZ-C4V7
6662 LLZ-F5V1
GND2
GND2
GND2

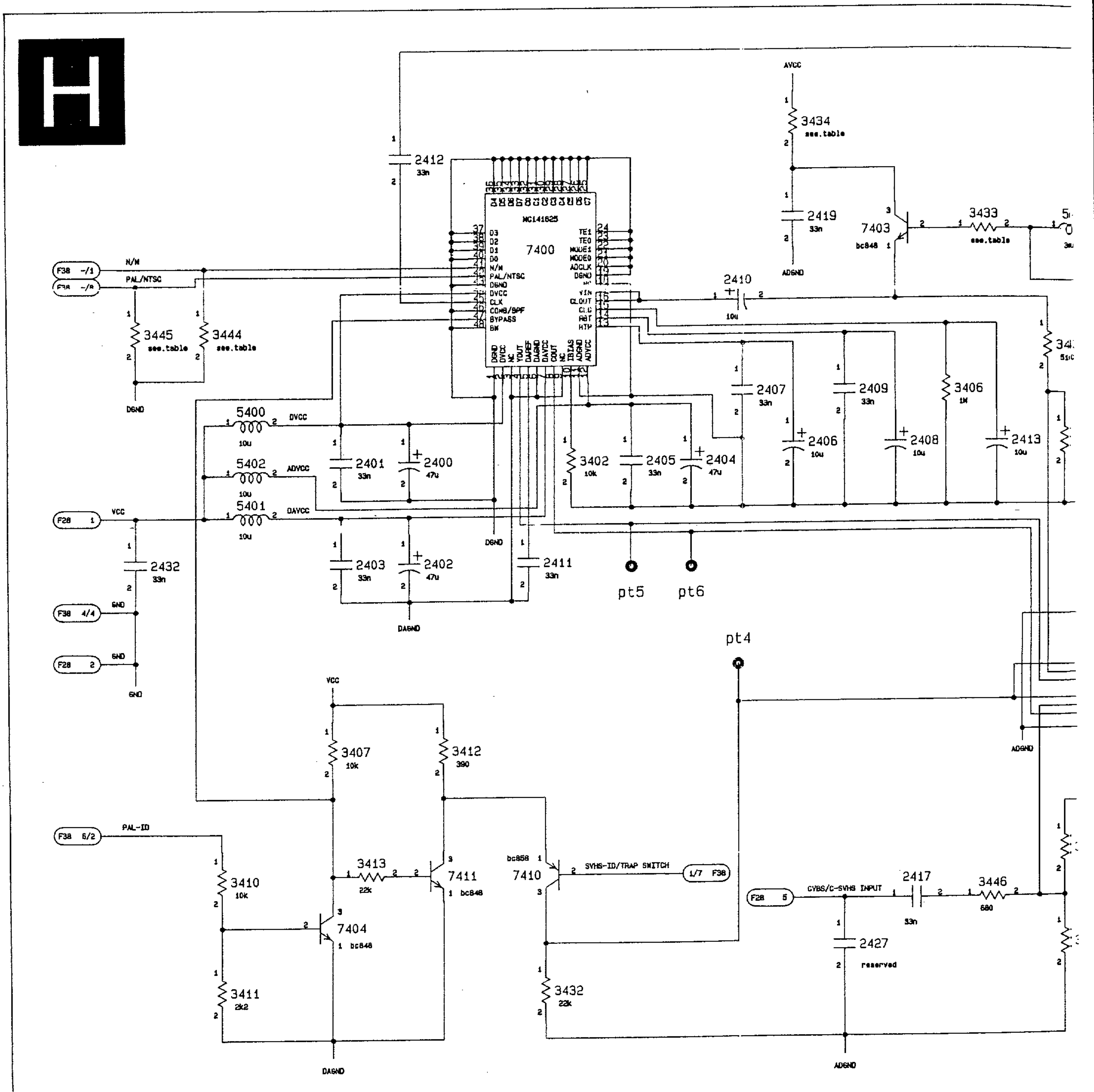
7661	H 4
7663	I 4
7671	D 6
9600	E 5
9601	D 6
A001	D 4
A002	D 4
A003	D 5
A004	D 6
A005	D 6
A006	E 5
A007	F 5
A008	G 4
A009	G 3
A010	H 3
A011	H 4
A012	H 4
A013	I 4
A014	I 5
A015	G15
A020	E 8
A021	D 8
A022	C 8
A023	D 7
A024	F 8
A025	F 9
A026	F10
A027	F11
A028	G11
A500	E15
A501	G13
A502	H14
A503	G14
A504	C 7
A505	E 5
A506	F 4
A507	D 3
A508	D 3
A509	C 5
A510	C 9
A511	E 7
A512	H14
A513	F 6
A514	I 3
A515	C 6
A516	C 8
A517	E 6
A518	I10
A519	I10
A520	C 8
A521	E11
N23	D 2
N23	C 2
N23	C 2
N23	D 2
N23	E 2
N23	D 2
N36	F16
N36	F16
N36	E16
N36	F16
N37	B 8
N37	B 8
N37	B 9
N37	B 7
N37	B 7
N37	B 8


9
10
11
12
13
14
15
16
17
A
B
C
D
E
F
G
H
I
J
G
6M37
3M37
6N37
3N37
feedback
520
A022
4601
A510
2636
2n2
21
3636
220K
2637
47pF
20
11
9
CONTROL
START
G
2
6
A027
A025
4
7
14
12
5
3663
5K6
2664
2u2
GND3
GND3
2662
270p
A026
2663
*
A521
CNR50
7614
8
1
4
2
6
5
3
7
V=
&
A500
output
3 N36
3M36
aux. supply
1 N36
1M36
negative
2 N36
2M36
mains supply
4 N36
4M36
CHASSIS
4604
A028
4605
GND3
A501
3628
330k
A503
2629
4n7
3629
6k8
2611
68u
A502
3624
160k
A015
3623
160k
3625
560k
A512

*

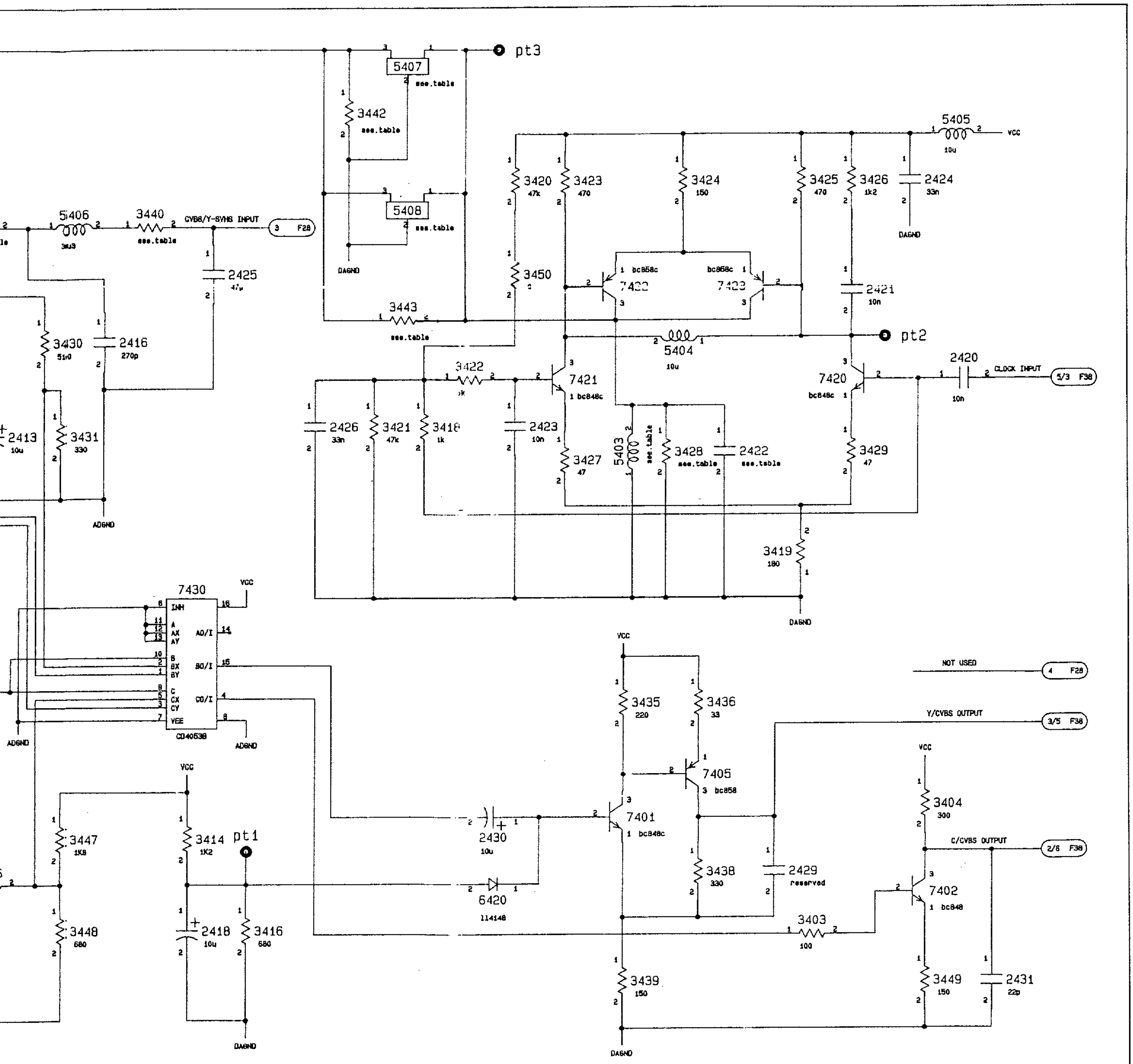
module sops	110	90
2663	82p	100p
3647	36k	33k
3673	4k64	4k7
3674	1k05	910
6648	12V	10V
3665	10K	8K2
3680	1K	5K6

Comb filter module


H
AVCC
3434
see.table
2419
33n
7403
bc848
3433
see.table
ADGND
2412
33n
MC141625
7400
D3
D2
D1
D0
N/M
PAL/NTSC
DGND
DVCC
CLK
COMB/BPF
BYPASS
BW
TE1
TE0
MODE1
MODE0
ADCLK
DGND
VIN
CLOUT
CLC
RBT
RTP
DGND
DVCC
YOUT
DAREF
DAGND
DAVCC
COUT
IBIAS
ADGND
ADVCC
2410
10u
F38 -/1
N/M
F38 -/8
PAL/NTSC
3445
see.table
3444
see.table
DGND
5400
10u
DVCC
5402
10u
ADVCC
5401
10u
DAVCC
F28 1
VCC
2401
33n
2400
47u
2403
33n
2402
47u
DAGND
DGND
2411
33n
3402
10k
2405
33n
2404
47u
2407
33n
2406
10u
2409
33n
2408
10u
3406
1M
2413
10u
pt5
pt6
pt4
2432
33n
GND
F38 4/4
F28 2
ADGND
VCC
3407
10k
3412
390
F38 5/2
PAL-ID
3410
10k
3413
22k
7411
bc848
7404
bc848
3411
2k2
bc858
7410
SVHS-ID/TRAP SWITCH
1/7 F38
3432
22k
F28 5
CVBS/C-SVHS INPUT
2417
33n
3446
680
2427
reserved
ADGND

COMPONENTS

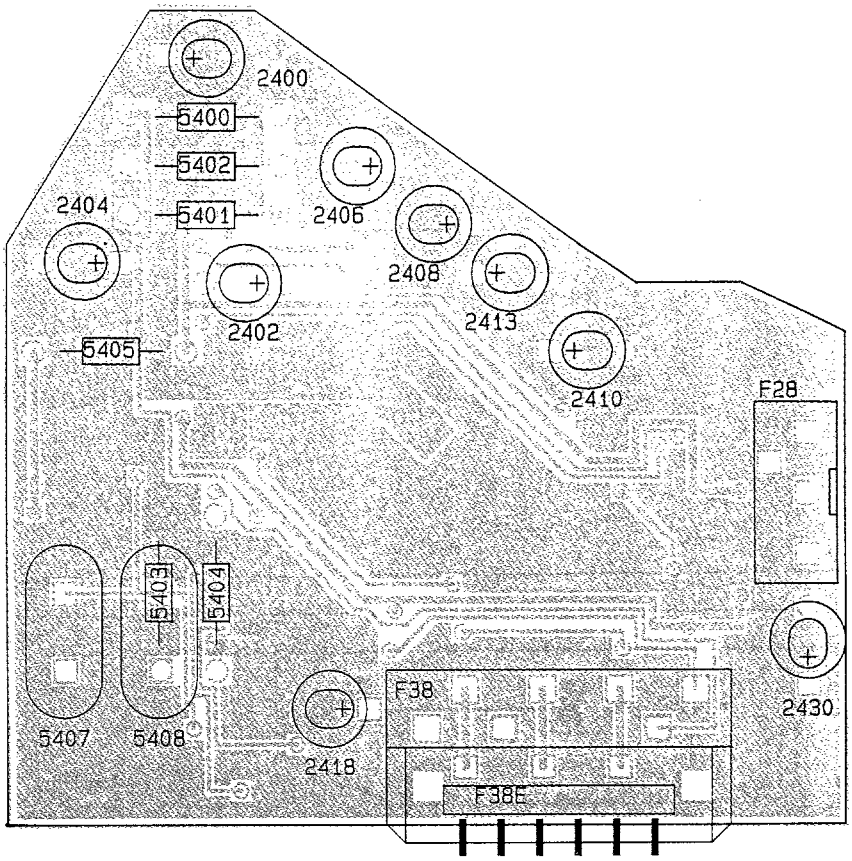
	2422	3428	5403	3443	3442	5407	5408	3444	3445	3440	3433	3434		sta
STANDARD VERSION :	100p	820	0.68u	0	-	-	-	0	0	100	220	220		
OVERSEAS VERSION :	-	240	-	-	-	SFE14-3	SFE17-7	-	-	120	47	0		

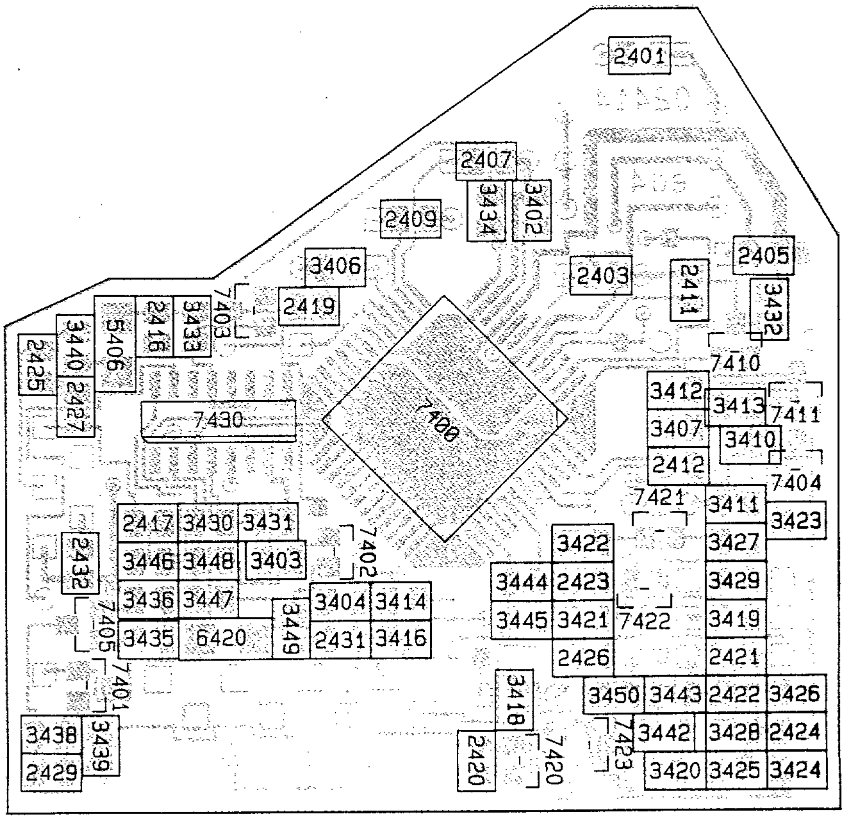

pt3
5407
see.table
3442
see.table
5408
see.table
DAGND
5405
10u
VCC
3420
47k
3423
470
3424
150
3425
470
3426
1k2
2424
33n
DAGND
5406
3u3
3440
see.table
CVBS/Y-SVHS INPUT
3 F28
2425
47μ
3450
3443
see.table
bc858c
7422
bc858c
7423
2421
10n
pt2
5404
10u
3430
510
2416
270p
3422
1k
7421
bc848c
2420
10n
CLOCK INPUT
5/3 F38
7420
bc848c
2413
10u
3431
330
ADGND
2426
33n
3421
47k
3418
1k
2423
10n
3427
47
5403
see.table
3428
see.table
2422
see.table
3429
47
3419
180
DAGND
7430
VCC
INH
A
AX
AY
B
BX
BY
C
CX
CY
VEE
AO/I
BO/I
CO/I
CD4053B
ADGND
ADGND
VCC
3435
220
3436
33
NOT USED
4 F28
Y/CVBS OUTPUT
3/5 F38
7405
bc858
VCC
3404
300
7401
bc848c
2430
10u
VCC
3447
1K8
3414
1K2
pt1
6420
1N4148
3438
330
2429
reserved
C/CVBS OUTPUT
2/6 F38
7402
bc848
3403
100
3448
680
2418
10u
3416
680
3439
150
3449
150
2431
22p
DAGND
DAGND

CONNECTOR F38	12 NC NUMBER
standar ver / overseas ver	
- 6 5 4 3 2 1 -	3111 258 02050
1 2 3 4 5 6 7 8	3111 258 00250

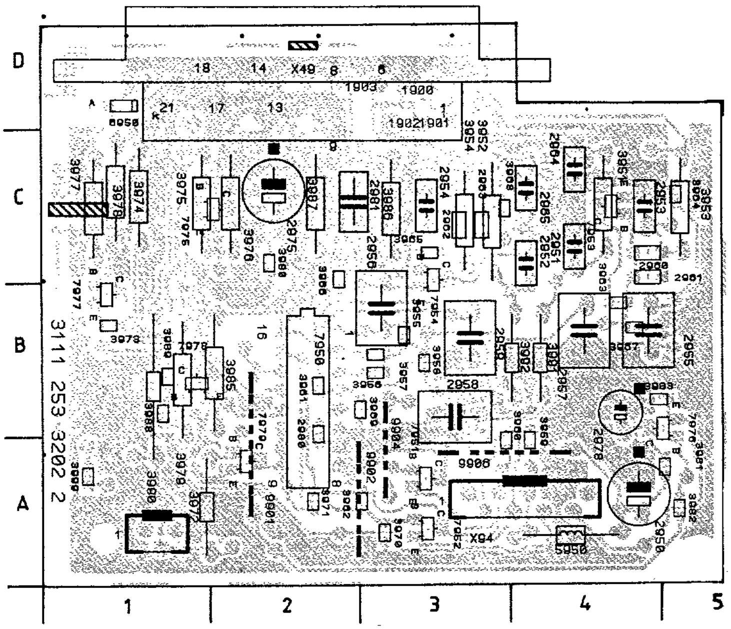
]

Comb filter module


2400
5400
5402
5401
2404
2406
2408
2413
2402
5405
2410
F28
5403
5404
2430
F38
5407
5408
2418
F38E


2401
2407
3434
3402
2409
3406
2403
2411
2405
3432
7403
2419
2416
3433
5406
3440
2425
2427
7410
3412
3413
7411
3407
3410
7430
7400
2412
7404
7421
3411
3423
2417
3430
3431
3446
3448
3403
7402
3422
3427
2432
3444
2423
3429
3436
3447
3404
3414
3445
3421
7422
3419
7405
3435
6420
3449
2431
3416
2426
2421
7401
3418
3450
3443
2422
3426
3438
3439
7423
3442
3428
2424
2420
7420
3420
3425
3424
2429

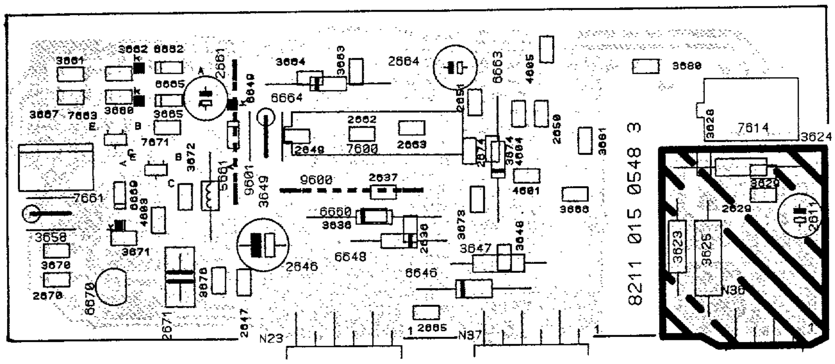
Third scart module 1006


D
C
B
A
1
2
3
4
5
3111 253 3202 2
X49
X94
1900
1901
1902
1903
18
14
8
6
21
17
13
1
6950
3977
3978
3974
3975
7976
3979
2975
3987
2981
3986
2954
2962
2963
3968
2964
2965
2951
2952
3953
3964
2960
2961
3963
7977
3973
7950
3961
2980
7978
3985
3989
3988
3990
3972
7979
9901
3971
9902
3970
9904
2958
9906
7951
7952
2956
3955
3956
3957
3958
3959
3960
3992
3991
3967
2978
2950
3981
3982
3983
2955
5950
7953
7954

1900	D3	3962	A3	7953	C4
1901	D3	3963	B4	7954	C3
1902	D3	3964	C5	7975	C2
1903	D3	3965	C3	7976	B5
2950	A4	3966	C2	7977	B1
2951	C4	3967	B4	7978	B2
2952	C4	3968	C4	7979	A2
2953	C5	3969	B3	9901	B2
2954	C3	3970	A3	9902	A3
2955	B5	3971	A2	9904	A3
2956	B3	3972	A2	9906	A4
2957	B4	3973	B1	X31	A1
2958	B3	3974	C1	X49	D3
2959	B3	3975	C2	X94	A4
2960	C5	3976	C2		
2961	C5	3977	C1		
2962	C3	3978	C1		
2963	C3	3979	B1		
2964	C4	3980	C2		
2965	C4	3981	A5		
2975	C2	3982	A5		
2978	B4	3983	B5		
2980	B2	3985	B2		
2981	C3	3986	C3		
3951	C4	3987	C2		
3952	C3	3988	B1		
3953	C5	3989	B1		
3954	C3	3990	B1		
3955	B3	3991	B4		
3956	B3	3992	B4		
3957	B3	5950	A4		
3958	B3	6950	D1		
3959	B4	7950	B2		
3960	B4	7951	A3		
3961	B2	7952	A3		

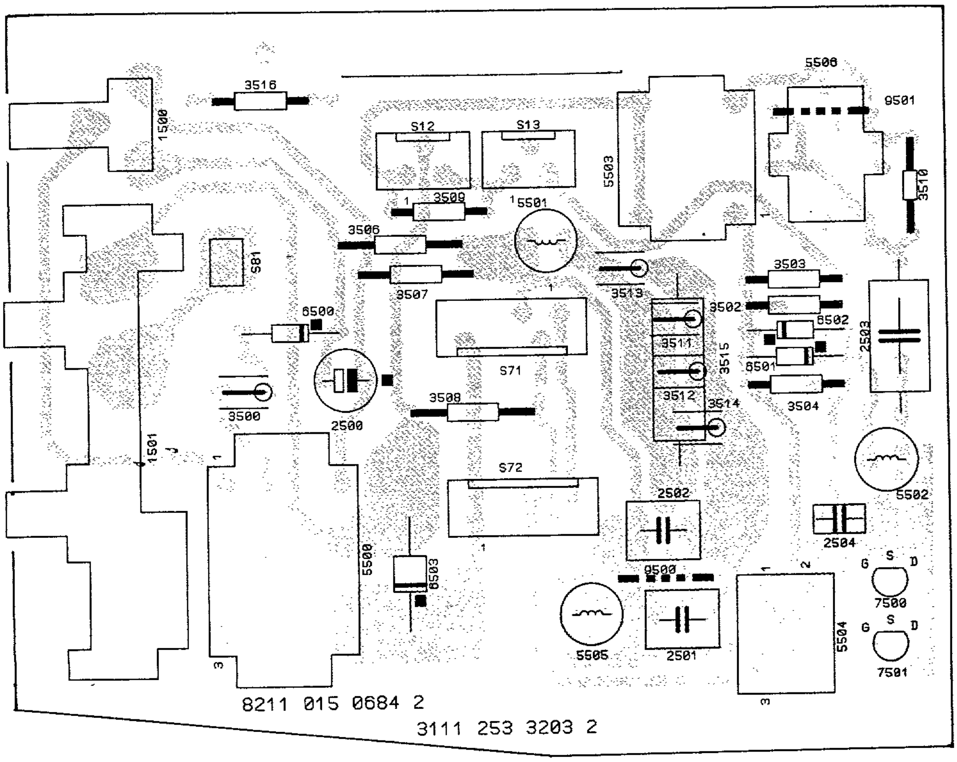
Sops controle module/Scanning module

SOPS CONTROLE MODULE 1007



3661
3662
6662
2661
3664
3663
2664
6663
4665
3680
3667
7663
3669
6665
3665
6664
2652
2669
3681
7614
3628
3624
7671
3672
5661
9601
3649
2649
7600
2663
3674
3674
4664
7661
9600
2637
4661
3666
3629
2629
3658
6660
3636
3673
3648
3623
3625
2611
3670
2670
3671
6670
2646
6648
3647
6646
2671
2647
N23
2665
N37
N38
8211 015 0548 3

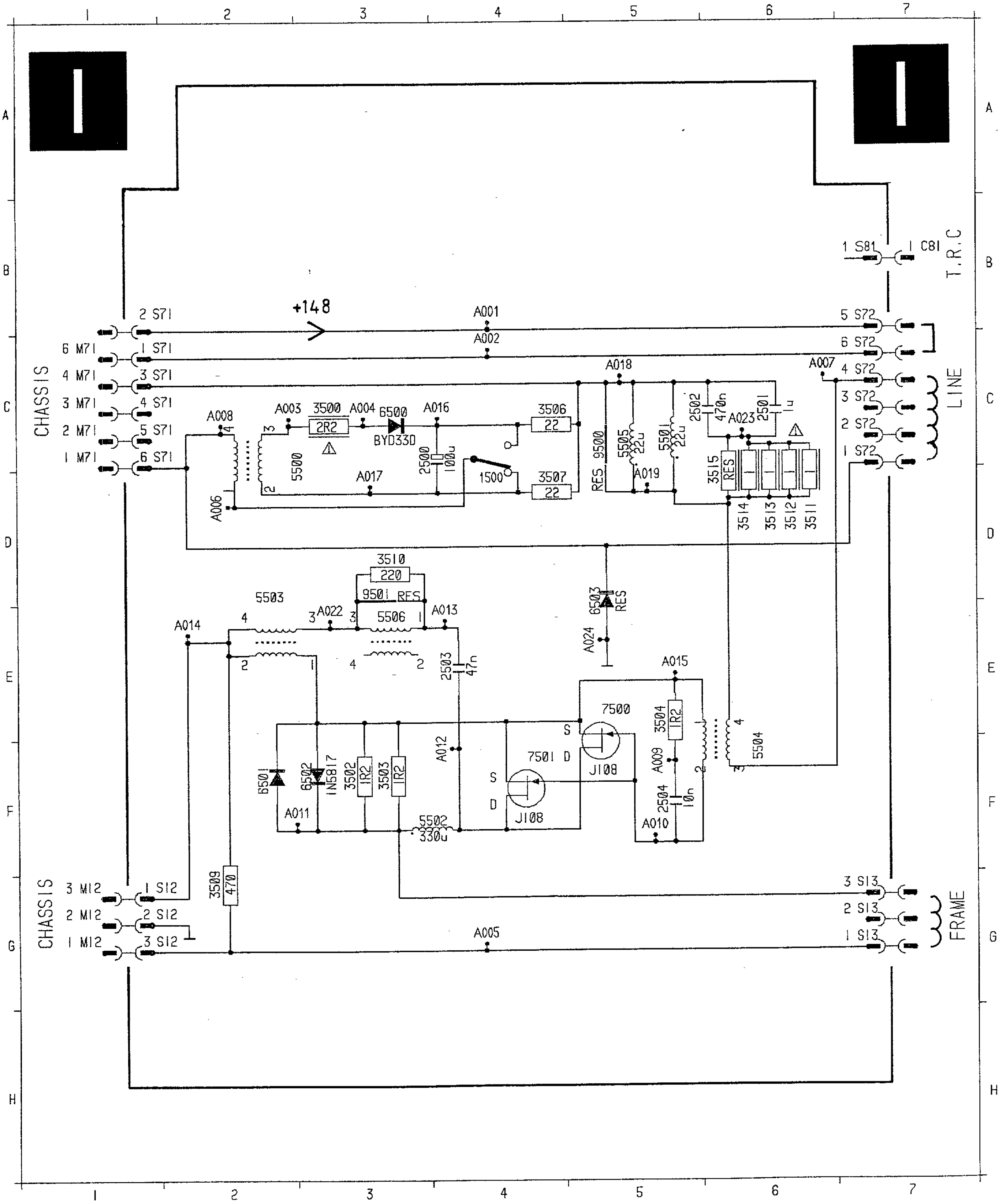
SCANNING MODULE 1009



3516
1500
5506
9501
S12
S13
5503
3510
3509
5501
3506
S81
3507
3513
3503
3502
6502
2503
6500
3511
3515
6501
S71
3500
2500
3508
3512
3514
3504
1501
5502
S72
2502
2504
5500
6503
9500
5505
2501
5504
7500
7501
G
S
D
1
2
3
8211 015 0684 2
3111 253 3203 2

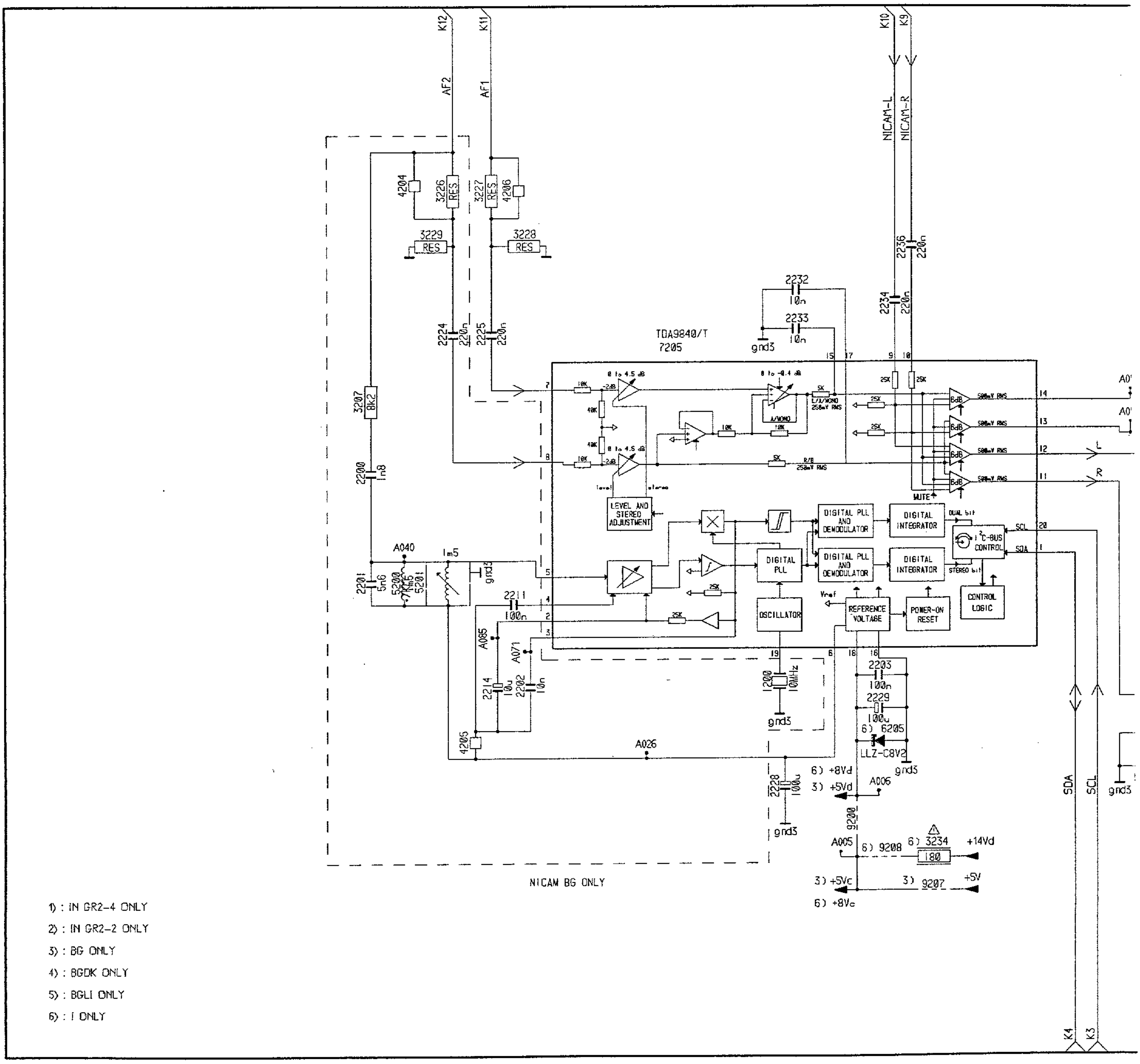
Scanning module

1500	D 4
1501	A 4
2500	C 3
2501	C 6
2502	C 5
2503	E 4
2504	F 5
3500	C 3
3502	F 3
3503	F 3
3504	E 5
3506	C 4
3507	D 4
3508	B 3
3509	G 2
3510	D 3
3511	D 6
3512	D 6
3513	D 6
3514	D 6
3515	D 6
3516	G 4
5500	C 3
5501	C 5
5502	F 4
5503	D 2
5504	F 6
5505	C 5
5506	E 3
6500	C 3
6501	F 2
6502	F 3
6503	D 5
7500	E 5
7501	F 4
9500	C 5
9501	D 3
A001	B 4
A002	C 4
A003	C 2
A004	C 3
A005	G 4
A006	D 2
A007	C 6
A008	C 2
A009	F 5
A010	F 5
A011	F 2
A012	F 4
A013	E 4
A014	E 2
A015	E 5
A016	C 4
A017	D 3
A018	C 5
A019	D 5
A020	B 3
A021	B 5
A022	E 3
A023	C 6
A024	E 5
A025	G 4
A026	G 3
S12	G 2
S12	G 2
S12	G 2
S13	G 7
S13	G 7
S13	G 7
S71	C 2
S71	B 2
S71	C 2
S71	C 2
S71	C 2
S71	C 2
S72	C 7
S72	C 7
S72	C 7
S72	C 7
S72	B 7
S72	C 7
S81	B 7



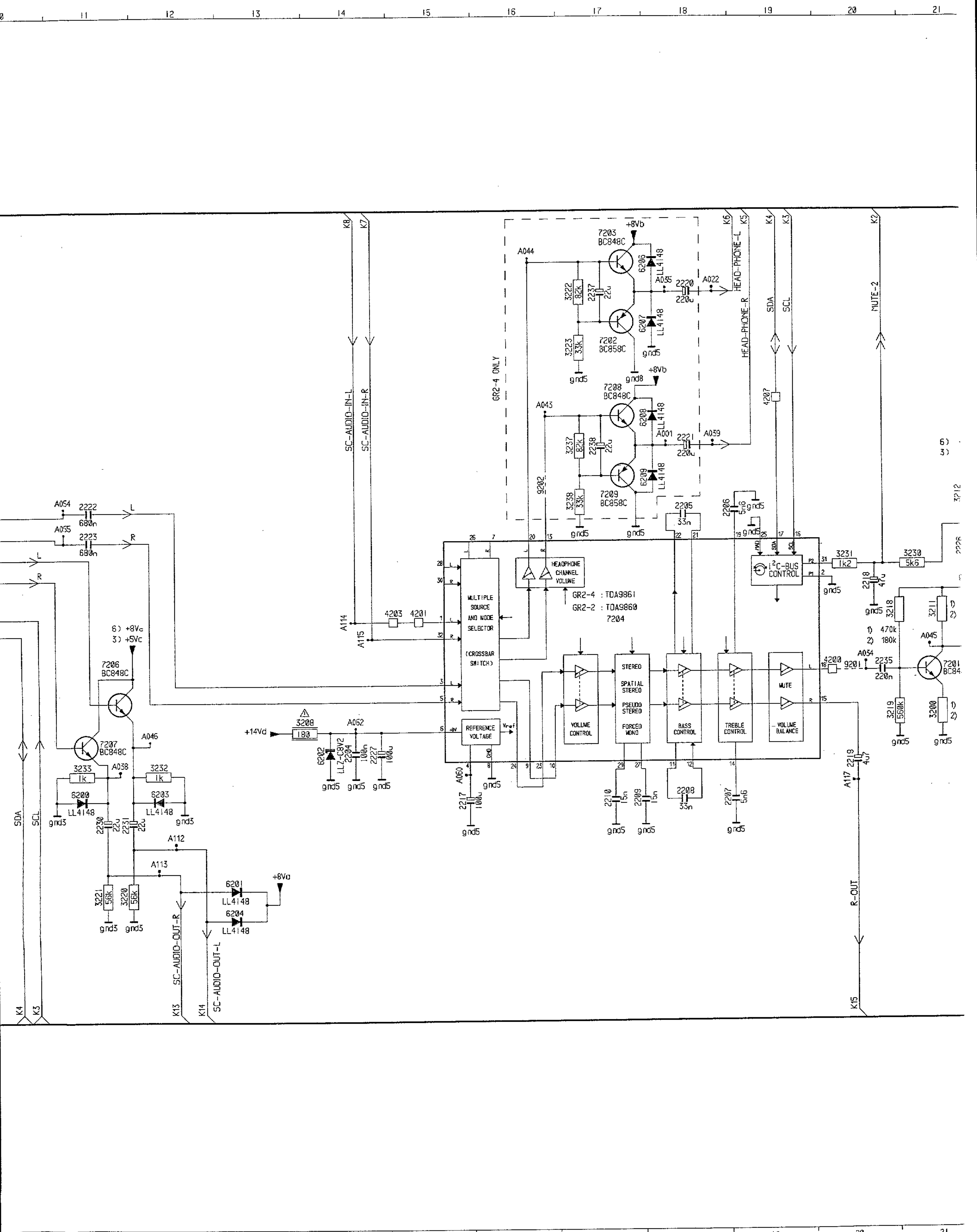
1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
CHASSIS
6 M71
4 M71
3 M71
2 M71
1 M71
2 S71
1 S71
3 S71
4 S71
5 S71
6 S71
+148
A001
A002
A018
A007
5 S72
6 S72
4 S72
3 S72
2 S72
1 S72
LINE
1 S81
1 C81
T.R.C
A008
A003
3500
2R2
A004
6500
BYD330
A016
3506
22
3507
22
5500
A017
A006
2500
100u
1500
RES
9500
5505
22u
5501
22u
2502
470n
2501
1u
A023
A019
3515
RES
3514
3513
3512
3511
3510
220
9501
RES
5503
A022
5506
A013
A014
2503
47n
6503
RES
A024
A015
7500
S
J108
3504
1R2
A009
2504
10n
A010
5504
7501
D
S
D
J108
A012
6501
6502
1N5817
3502
1R2
3503
1R2
A011
5502
330u
3509
470
CHASSIS
3 M12
2 M12
1 M12
1 S12
2 S12
3 S12
A005
3 S13
2 S13
1 S13
FRAME

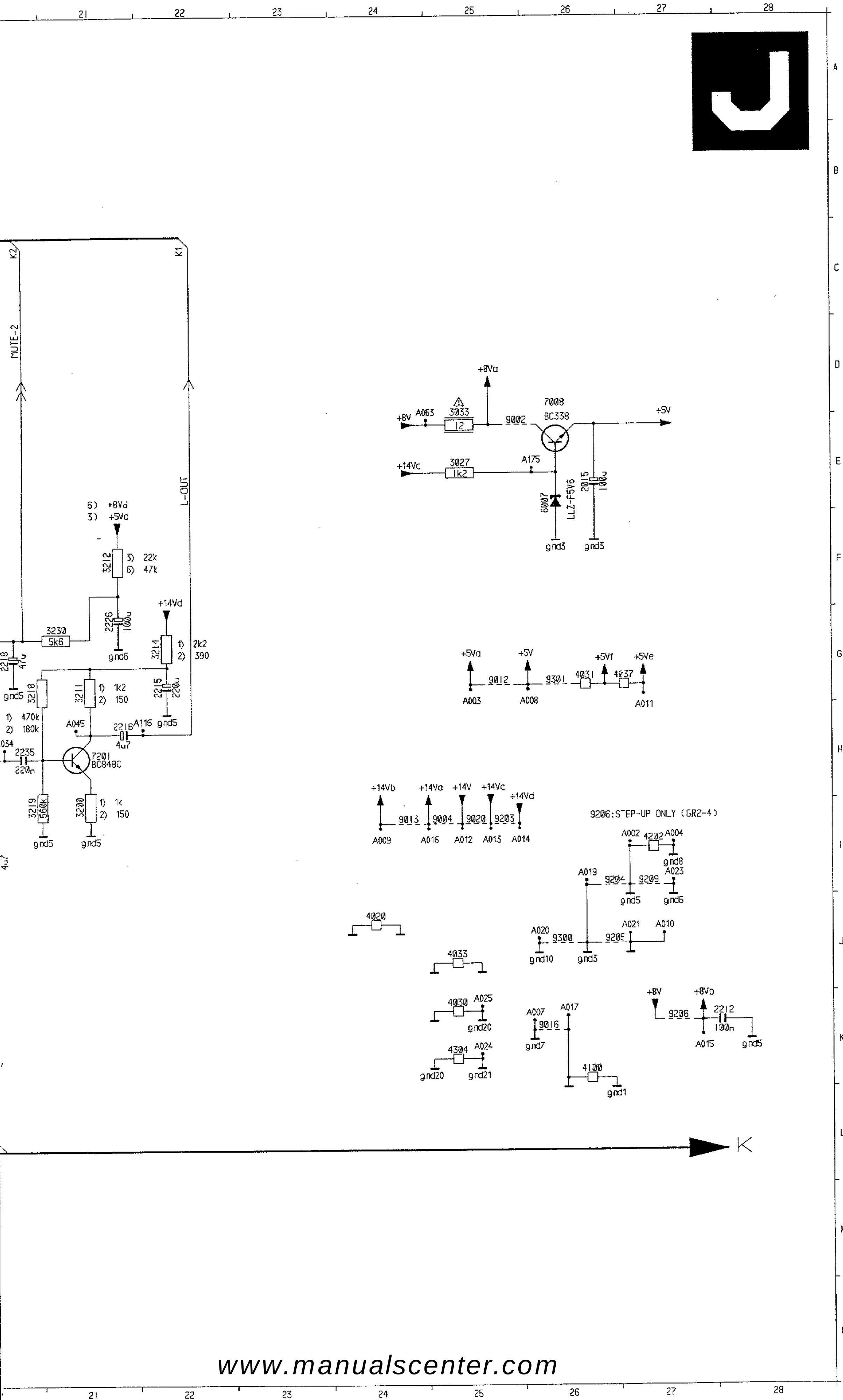
Nicam IF-Sound module/Nicam ZF-Ton module


K12
K11
AF2
AF1
K10
K9
NICAM-L
NICAM-R
4204
3226 RES
3227 RES
4206
3229 RES
3228 RES
2236 220n
2232 10n
2233 10n
2234 220n
gnd3
2224 220n
2225 220n
TDA9840/T
7205
3207 8k2
2200 1n8
0 to 4.5 dB
0 to -0.4 dB
10K
40K
5K
25K
-2dB
L/A/MONO 250mV RMS
R/B 250mV RMS
A/MONO
6dB
500mV RMS
MUTE
level
stereo
LEVEL AND STEREO ADJUSTMENT
DIGITAL PLL AND DEMODULATOR
DIGITAL INTEGRATOR
DIGITAL PLL
OSCILLATOR
REFERENCE VOLTAGE
POWER-ON RESET
CONTROL LOGIC
I²C-BUS CONTROL
DUAL bit
STEREO bit
Vref
SCL
SDA
A0'
L
R
A040
1m5
2201 5n6
5200 1m5
5201
2211 100n
A085
A071
2214 10u
2202 10n
4205
A026
1200 10MHz
2203 100n
2229 100u
6) 6205
LLZ-C8V2
gnd3
6) +8Vd
3) +5Vd
A006
2228 100u
9200
A005
6) 9208
6) 3234
180
+14Vd
3) +5Vc
3) 9207
+5V
6) +8Vc
NICAM BG ONLY
K4
K3

1) : IN GR2-4 ONLY
2) : IN GR2-2 ONLY
3) : BG ONLY
4) : BGDK ONLY
5) : BGLI ONLY
6) : I ONLY

Module FI-Son Nicam

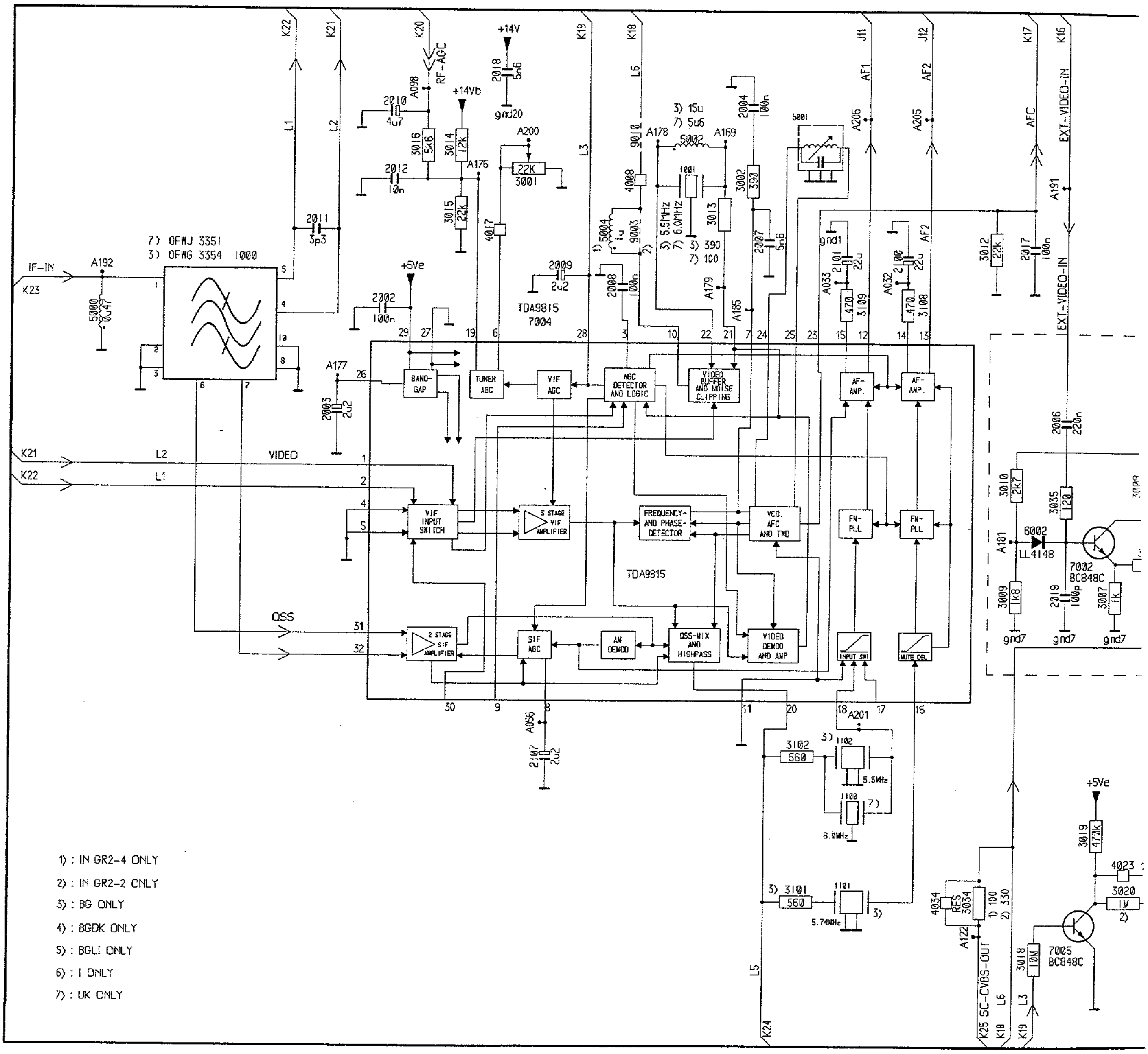

10
11
12
13
14
15
16
17
18
19
20
21
K8
K7
K6
K5
K4
K3
K2
SC-AUDIO-IN-L
SC-AUDIO-IN-R
HEAD-PHONE-L
HEAD-PHONE-R
SDA
SCL
MUTE-2
GR2-4 ONLY
+8Vb
7203
BC848C
6206
LL4148
A044
3222
82k
2237
22u
A035
2220
220u
A022
7202
BC858C
6207
LL4148
3223
33k
gnd5
gnd8
7208
BC848C
A043
6208
LL4148
3237
82k
2238
22u
A001
2221
220u
A039
7209
BC858C
6209
LL4148
3238
33k
9202
4207
2205
33n
2206
5n6
6)
3)
3212
2226
A054
2222
680n
L
A055
2223
680n
R
A114
A115
4203
4201
26
7
20
13
22
21
19
25
17
16
28
30
1
32
3
5
6
MULTIPLE SOURCE AND MODE SELECTOR
(CROSSBAR SWITCH)
HEADPHONE CHANNEL VOLUME
GR2-4 : TDA9861
GR2-2 : TDA9860
7204
I²C-BUS CONTROL
P2
P1
31
2
3231
1k2
3230
5k6
2218
47u
3218
3211
1) 470k
2) 180k
A045
A034
4200
9201
2235
220n
7201
BC84
3219
560k
3200
18
15
STEREO
SPATIAL STEREO
PSEUDO STEREO
FORCED MONO
VOLUME CONTROL
BASS CONTROL
TREBLE CONTROL
MUTE
VOLUME BALANCE
REFERENCE VOLTAGE
Vref
+8V
GND
6) +8Vc
3) +5Vc
7206
BC848C
7207
BC848C
A046
+14Vd
3208
180
A052
6202
LLZ-C8V2
2204
100n
2227
100u
A060
4
8
24
9
23
10
29
27
11
12
14
2217
100u
2210
15n
2209
15n
2208
33n
2207
5n6
2219
4u7
A117
3233
1k
A038
3232
1k
6200
LL4148
6203
LL4148
gnd3
2230
22u
2231
22u
A112
A113
6201
LL4148
+8Va
6204
LL4148
3221
56k
3220
56k
SC-AUDIO-OUT-R
SC-AUDIO-OUT-L
K13
K14
R-OUT
K15


21
22
23
24
25
26
27
28
J
A
B
C
D
E
F
G
H
I
J
K
L
M
N
K2
K1
MUTE-2
L-OUT
6) +8Vd
3) +5Vd
3212
3) 22k
6) 47k
2226
100u
gnd6
3230
5k6
2218
47u
gnd5
+14Vd
3214
1) 2k2
2) 390
3218
1) 470k
2) 180k
3211
1) 1k2
2) 150
2215
220u
gnd5
A045
2216
A116
4u7
034
2235
220n
7201
BC848C
3219
560k
3200
1) 1k
2) 150
gnd5
gnd5
4u7
+8Va
3033
12
+8V
A063
9002
7008
BC338
+5V
+14Vc
3027
1k2
A175
6007
LLZ-F5V6
2015
100u
gnd3
gnd3
+5Va
+5V
+5Vf
+5Ve
9012
9301
4031
4037
A003
A008
A011
+14Vb
+14Va
+14V
+14Vc
+14Vd
9013
9004
9020
9203
A009
A016
A012
A013
A014
9206:STEP-UP ONLY (GR2-4)
A002
4202
A004
gnd8
A019
9204
9209
A023
gnd5
gnd5
4020
A020
9300
A021
A010
9205
gnd10
gnd3
4033
4030
A025
gnd20
+8V
+8Vb
9206
2212
100n
A015
gnd5
A007
A017
9016
gnd7
4304
A024
gnd20
gnd21
4100
gnd1
K

1200	I 7
2015	E26
2200	G 4
2201	H 4
2202	I 5
2203	I 8
2204	I14
2205	F18
2206	F18
2207	J18
2208	I18
2209	J17
2210	J17
2211	H 5
2212	K28
2214	I 5
2215	G22
2216	H21
2217	J15
2218	G20
2219	I20
2220	D18
2221	E18
2222	F11
2223	F11
2224	F 4
2225	F 5
2226	G21
2227	I14
2228	J 7
2229	I 8
2230	J11
2231	J11
2232	E 8
2233	E 8
2234	E 8
2235	H20
2236	E 9
2237	D17
2238	E17
3027	E25
3033	D25
3200	I21
3207	F 4
3208	I14
3211	G21
3212	F21
3214	G22
3218	G20
3219	I20
3220	K11
3221	K11
3222	D17
3223	D17
3226	D 4
3227	D 5
3228	E 5
3229	E 4
3230	G21
3231	G20
3232	I12
3233	I11
3234	J 9
3237	E17
3238	F17
4020	J24
4030	K25
4031	G26
4033	J25
4037	G27
4100	K26
4200	H20
4201	G15
4202	I27
4203	G15
4204	D 4
4205	I 5
4206	D 5
4207	E19
4304	K25
5200	H 4
5201	H 4
6007	E26
6200	I11
6201	K13
6202	I14
6203	I12
6204	K13
6205	I 9
6206	C18
6207	D18
6208	E18
6209	F18
7008	D26
7201	H21
7202	D17
7203	C17
7204	G17
7205	F 6
7206	H11
7207	I11
7208	E17
7209	F17
9002	E25
9004	I25
9012	G25
9013	I24
9016	K26
9020	I25
9200	J 8
9201	H20
9202	F16
9203	I25
9204	I26
9205	J26
9206	K27
9207	K 9
9208	J 9
9209	I27
9300	J26
9301	G26
A001	E18
A002	I27
A003	G25
A004	I27
A005	J 8
A006	J 8
A007	K26
A008	G26
A009	I24
A010	J27
A011	H27
A012	I25
A013	I25
A014	I25
A015	K27
A016	I25
A017	K26
A019	I26
A020	J26
A021	J27
A022	C18
A023	I27
A024	K25
A025	K25
A026	I 6
A034	H20
A035	C18
A038	I11
A039	E18
A040	H 4
A043	E16
A044	C16
A045	H21
A046	I12
A054	F11
A055	F11
A060	I15
A062	I14
A063	D24
A071	H 5
A085	H 5
A112	J12
A113	J12
A114	G14
A115	H14
A116	H22
A117	I20
A175	E26

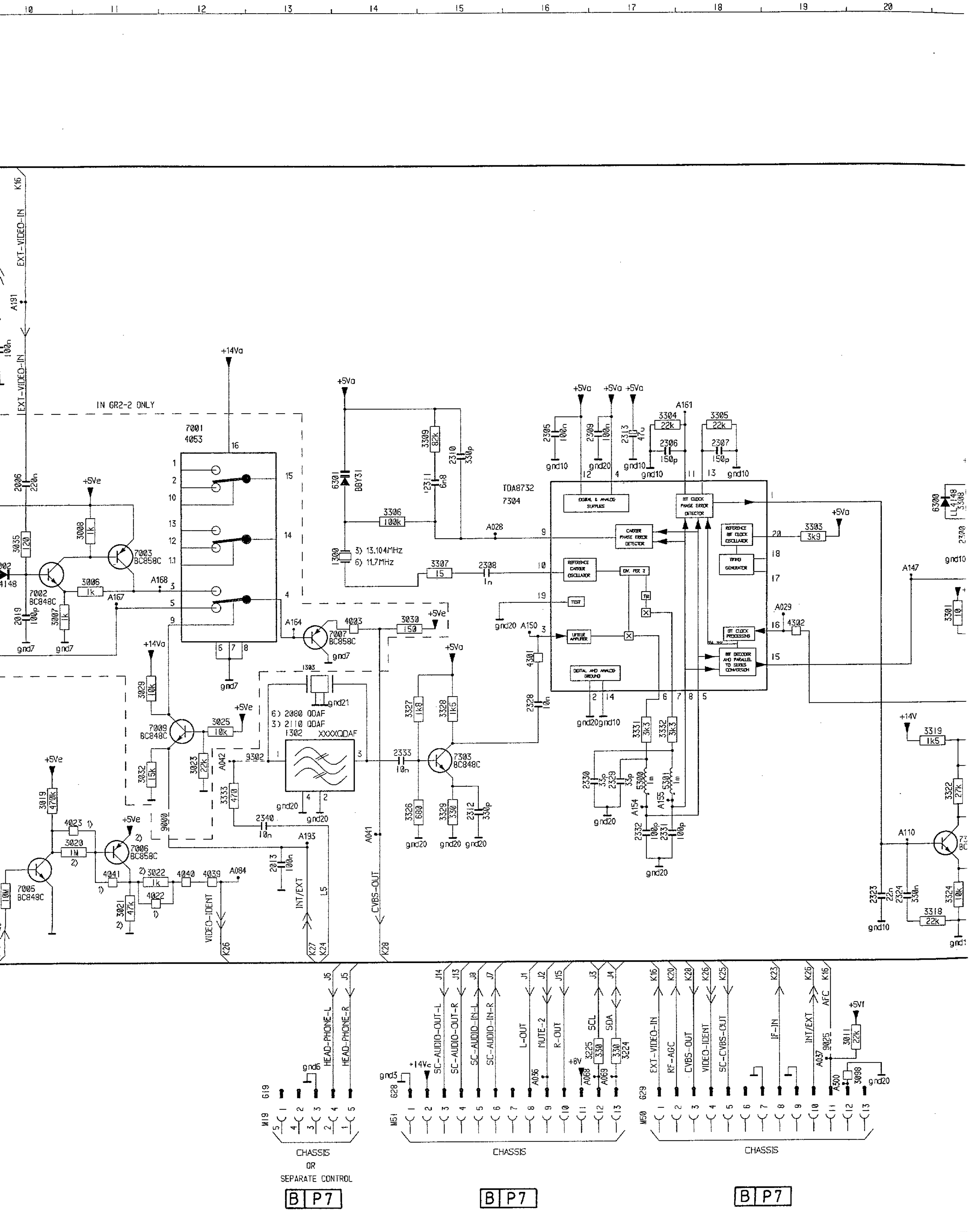
Nicam IF-Sound module/Nicam ZF-Ton module

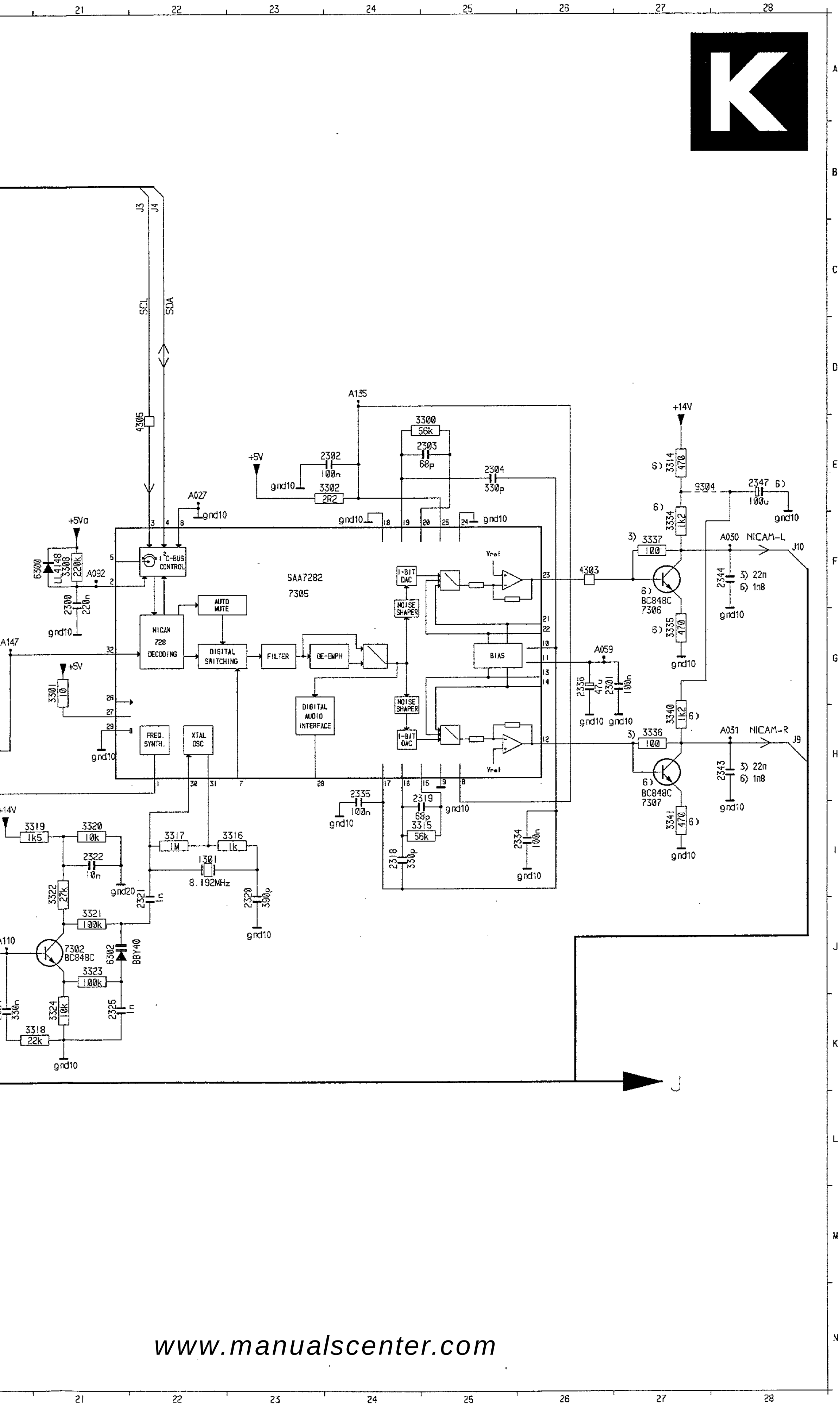
K


IF-IN
K23
A192
5000 0u47
7) OFWJ 3351
3) OFWG 3354 1000
K22
K21
L1
L2
2011 3p3
K20
RF-AGC
A098
2010 4u7
3016 5k6
2012 10n
+14Vb
3014 12k
A176
3015 22k
+14V
2018 5n6
gnd20
A200
22K 3001
4017
+5Ve
2002 100n
A177
2003 2u2
K19
L3
K18
L6
9010
A178
3) 15u
7) 5u6
5002
A169
4008
1001
3) 5.5MHz
7) 6.0MHz
3013
3) 390
7) 100
5004 1u
9003
2009 2u2
2008 100n
TDA9815
7004
2004 100n
3002 390
2007 5n6
A179
A185
5001
J11
AF1
A206
J12
AF2
A205
gnd1
A033
2101 22u
470 3109
A032
2100 22u
470 3108
K17
AFC
K16
EXT-VIDEO-IN
A191
3012 22K
2017 100n
BAND-GAP
TUNER AGC
VIF AGC
AGC DETECTOR AND LOGIC
VIDEO BUFFER AND NOISE CLIPPING
AF-AMP.
AF-AMP.
VIDEO
VIF INPUT SWITCH
3 STAGE VIF AMPLIFIER
FREQUENCY- AND PHASE-DETECTOR
VCO, AFC AND TWD
FM-PLL
FM-PLL
QSS
2 STAGE SIF AMPLIFIER
SIF AGC
AM DEMOD
QSS-MIX AND HIGHPASS
VIDEO DEMOD AND AMP
INPUT SW
MUTE DEL
A056
2107 2u2
A201
3102 560
1102 5.5MHz
1100 6.0MHz
3) 3101 560
1101 5.74MHz
L5
K24
2006 220n
3010 2K7
3035 120
A181
6002 LL4148
7002 BC848C
3009 1K8
2019 100p
3007 1K
gnd7
+5Ve
3019 470k
4023
3020 1M
4034
RES 3034
1) 100
2) 330
A122
3018 10M
7005 BC848C
K25 SC-CVBS-OUT
K19

1) : IN GR2-4 ONLY
2) : IN GR2-2 ONLY
3) : BG ONLY
4) : BGDK ONLY
5) : BGLI ONLY
6) : I ONLY
7) : UK ONLY

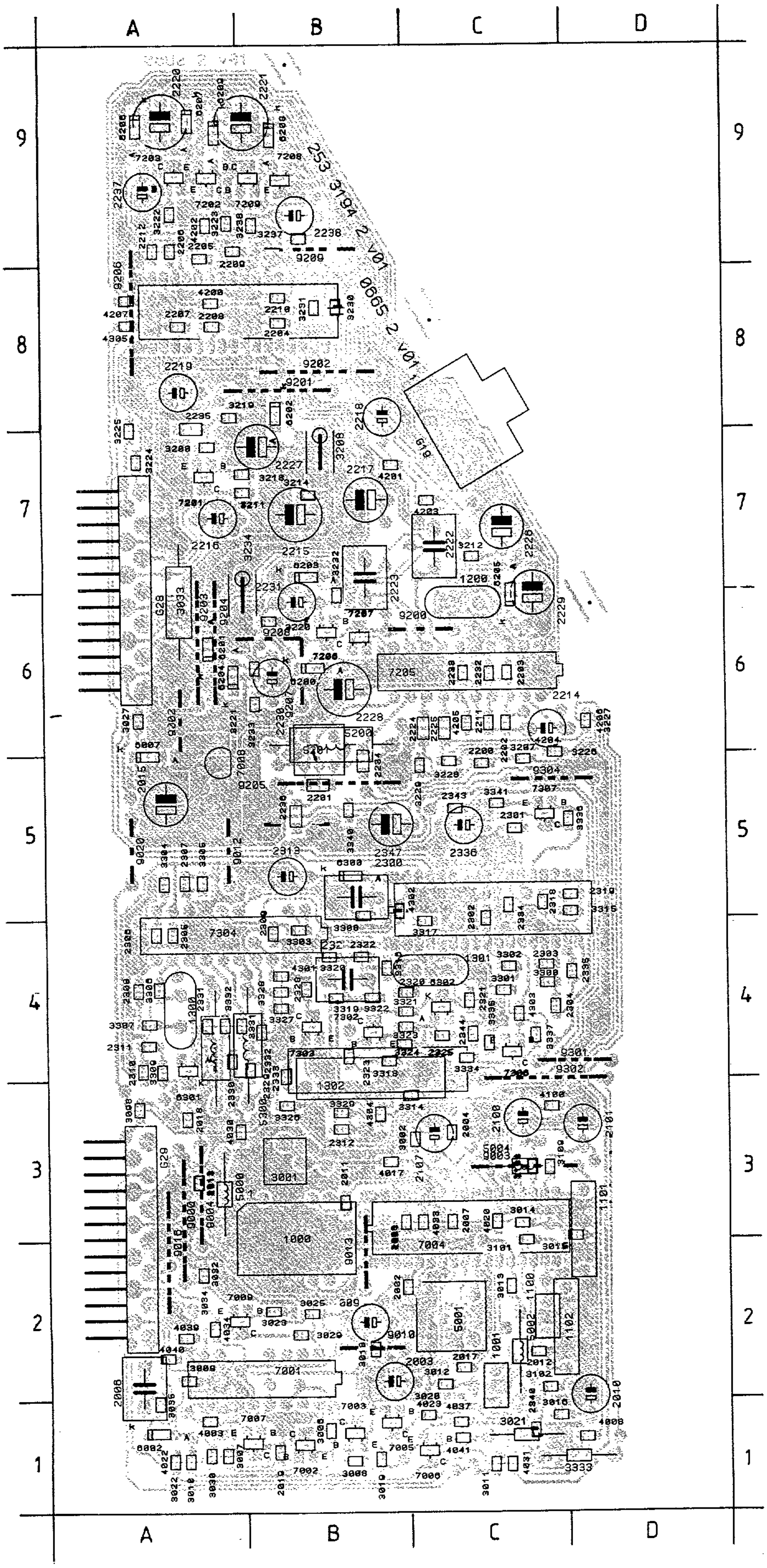
Module FI-Son Nicam


10
11
12
13
14
15
16
17
18
19
20
K16
EXT-VIDEO-IN
A191
EXT-VIDEO-IN
+14Va
IN GR2-2 ONLY
7001
4053
16
15
14
4
2006
220n
+5Ve
3008
1k
7003
BC858C
3035
120
7002
BC848C
3006
1k
A168
A167
2019
100p
3007
1k
gnd7
9
5
6 7 8
gnd7
+14Va
3029
10k
7009
BC848C
3025
10k
+5Ve
3032
15k
3023
22k
A042
9302
+5Ve
3019
470k
4023
3020
1M
7006
BC858C
7005
BC848C
3022
1k
4041
4040
4039
A084
4022
3021
47k
9000
VIDEO-IDENT
K26
A164
7007
BC858C
4003
3030
150
+5Ve
gnd7
1303
gnd21
6) 2080 QDAF
3) 2110 QDAF
1302
XXXXQDAF
3333
470
2340
10n
A193
gnd20
2013
100n
INT/EXT
L5
K27
K24
CVBS-OUT
A041
K28
+5Va
6301
BBY31
3309
82k
2311
6n8
2310
330p
3306
100k
1300
3) 13.104MHz
6) 11.7MHz
3307
15
2308
1n
A028
+5Va
3327
1k8
3328
1k5
7303
BC848C
2333
10n
3326
680
3329
330
2312
330p
gnd20
TDA8732
7304
+5Va
+5Va
+5Va
2305
100n
2309
100n
2313
47u
gnd10
gnd20
A161
3304
22k
3305
22k
2306
150p
2307
150p
DIGITAL & ANALOG SUPPLIES
BIT CLOCK PHASE ERROR DETECTOR
CARRIER PHASE ERROR DETECTOR
REFERENCE BIT CLOCK OSCILLATOR
TIMING GENERATOR
REFERENCE CARRIER OSCILLATOR
DIV. PER 2
TEST
LIMITER AMPLIFIER
BIT CLOCK PROCESSING
BIT DECODER AND PARALLEL TO SERIES CONVERSION
DIGITAL AND ANALOG GROUND
A150
4301
2328
10n
gnd20 gnd10
3331
3k3
3332
3k3
2330
33p
2329
33p
5300
1m
5301
1m
A154
A155
2332
100p
2331
100p
+5Va
3303
3k9
A029
4302
6300
LL4148
3308
2300
gnd10
A147
3301
10
+14V
3319
1k5
3322
27k
A110
2323
22n
2324
330n
3324
10k
3318
22k
J6
J5
HEAD-PHONE-L
HEAD-PHONE-R
gnd6
G19
M19
J14
J13
J8
J7
SC-AUDIO-OUT-L
SC-AUDIO-OUT-R
SC-AUDIO-IN-L
SC-AUDIO-IN-R
+14Vc
gnd3
G28
M51
J1
J2
J15
L-OUT
MUTE-2
R-OUT
A036
J3
J4
SCL
SDA
+8V
3225
330
3224
330
A068
A069
K16
K20
K28
K26
K25
EXT-VIDEO-IN
RF-AGC
CVBS-OUT
VIDEO-IDENT
SC-CVBS-OUT
G29
M50
K23
IF-IN
K26
K16
INT/EXT
AFC
+5Vf
9025
3011
22k
A037
A300
3098
gnd20
CHASSIS OR SEPARATE CONTROL
B P7
CHASSIS
B P7
CHASSIS
B P7


21
22
23
24
25
26
27
28
K
J3
J4
SCL
SDA
4305
A135
+5V
2302
100n
gnd10
3302
2R2
3300
56k
2303
68p
2304
330p
A027
gnd10
+5Va
6300
LL4148
3308
220k
A092
2300
220n
I²C-BUS CONTROL
SAA7282
7305
AUTO MUTE
NICAM 728 DECODING
DIGITAL SWITCHING
FILTER
DE-EMPH
BIAS
1-BIT DAC
NOISE SHAPER
DIGITAL AUDIO INTERFACE
FREQ. SYNTH.
XTAL OSC
Vref
A147
+5V
3301
10
gnd10
A059
2336
47u
2301
100n
2335
100n
2319
68p
3315
56k
2318
330p
2334
100n
+14V
3314
470
9304
2347
100u
3334
1k2
3337
100
A030
NICAM-L
J10
4303
BC848C
7306
2344
3) 22n
6) 1n8
3335
470
3340
1k2
3336
100
A031
NICAM-R
J9
BC848C
7307
2343
3341
470
+14V
3319
1k5
3320
10k
2322
10n
gnd20
3317
1M
3316
1k
1301
8.192MHz
2321
1n
2320
390p
3322
27k
3321
100k
A110
7302
BC848C
6302
BBY40
3323
100k
3324
10k
330n
2325
1n
3318
22k
J

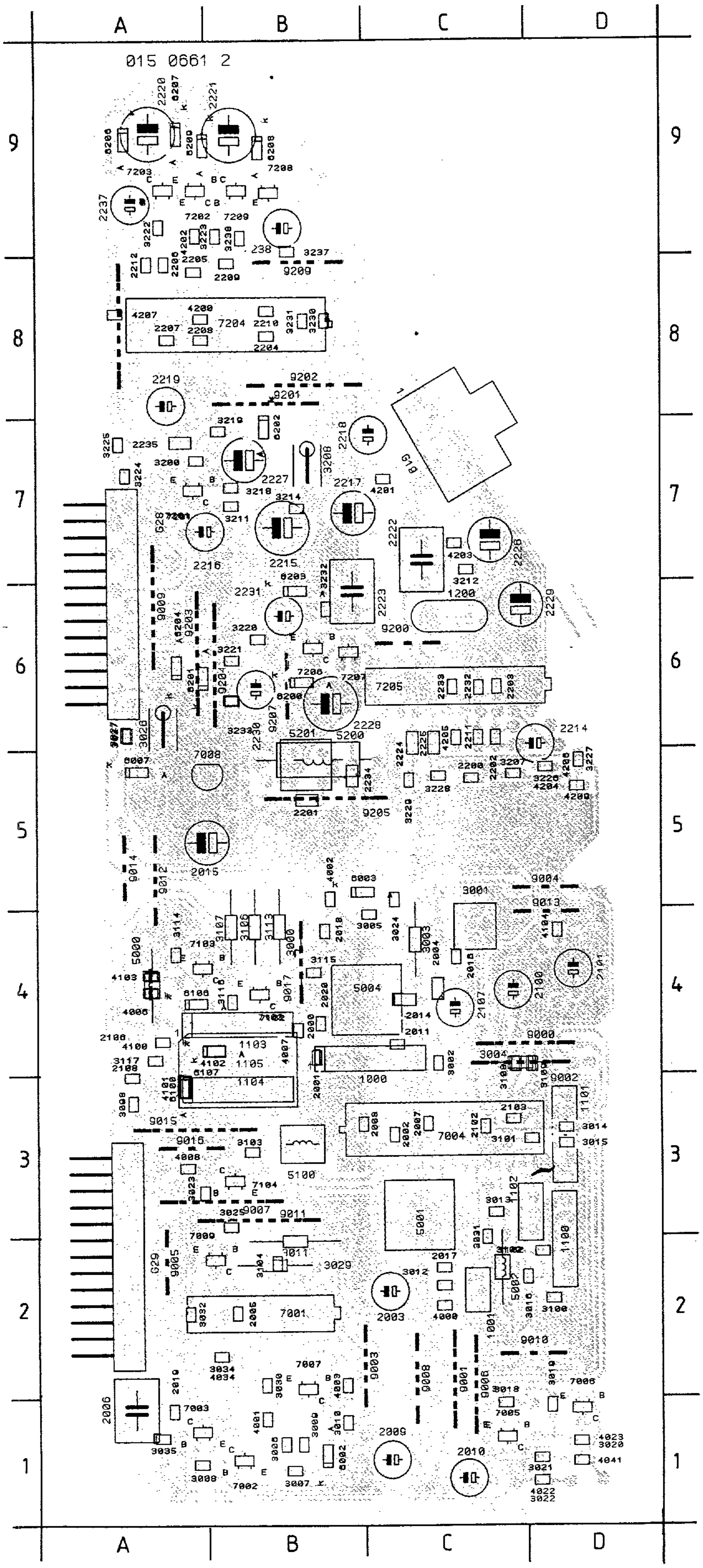
1000	D 2
1001	D 6
1100	I 8
1101	J 8
1102	I 8
1300	G14
1301	I22
1302	I13
1303	H13
2002	E 4
2003	F 3
2004	C 7
2006	F10
2007	D 7
2008	E 6
2009	D 5
2010	C 4
2011	D 3
2012	D 4
2013	J13
2017	D10
2018	C 5
2019	G10
2100	D 8
2101	D 8
2107	I 5
2300	F21
2301	G26
2302	E24
2303	E25
2304	E25
2305	E16
2306	E17
2307	E18
2308	G15
2309	E17
2310	E15
2311	F15
2312	J15
2313	E17
2318	I24
2319	H25
2320	I23
2321	I22
2322	I21
2323	K20
2324	K20
2325	K21
2328	H16
2329	I17
2330	I16
2331	J17
2332	J17
2333	I14
2334	I26
2335	H24
2336	G26
2340	J13
2343	H28
2344	F28
2347	E28
3001	D 5
3002	D 7
3006	G11
3007	G10
3008	F11
3009	G 9
3010	F 9
3011	L20
3012	D 9
3013	D 7
3014	C 4
3015	D 4
3016	C 4
3018	K10
3019	I10
3020	J11
3021	K11
3022	J11
3023	I12
3025	I12
3029	H11
3030	G14
3032	I11
3034	J 9
3035	F10
3098	M20
3101	J 8
3102	I 8
3108	E 9
3109	E 8
3224	L17
3225	L17
3300	E25
3301	G21
3302	E24
3303	F19
3304	E17
3305	E18
3306	F14
3307	G15
3308	F21
3309	E15
3314	E27
3315	I25
3316	I23
3317	I22
3318	K21
3319	I21
3320	I21
3321	J21
3322	I21
3323	J21
3324	K21
3326	J14
3327	H14
3328	H15
3329	J15
3331	I17
3332	I17
3333	I12
3334	F27
3335	G27
3336	H27
3337	F27
3340	H27
3341	I27
4003	G14
4008	D 6
4017	D 5
4022	K11
4023	J10
4034	J 9
4039	J12
4040	J12
4041	J11
4301	H16
4302	G19
4303	F26
4305	E22
5000	E 1
5001	C 7
5002	C 7
5004	D 6
5300	I17
5301	I17
6002	G10
6300	F20
6301	F14
6302	J21
7001	E12
7002	G10
7003	G11
7004	E 5
7005	K10
7006	J11
7007	H13
7009	I12
7302	J21
7303	I15
7304	F15
7305	F23
7306	G27
7307	I27
9000	J12
9003	D 6
9010	C 6
9025	L19
9302	I13
9304	E27
A027	E22
A028	F15
A029	G19
A030	F28
A031	H28
A032	E 8
A033	E 8
A036	M16
A037	M19
A041	J14
A042	I12
A056	I 5
A059	G26
A068	M16
A069	M17
A084	J12
A092	F21
A098	C 4
A110	J20
A122	J 9
A135	D24
A147	G20
A150	G16
A154	J17
A155	J17
A161	E18
A164	G13
A167	G11
A168	G11
A169	C 7
A176	D 5
A177	E 3
A178	C 6
A179	E 7
A181	G 9
A185	E 7
A191	D10
A192	D 1
A193	J13
A200	C 5
A201	H 8
A205	C 9
A206	C 8
A300	M19
G19	M13
G19	M13
G19	M13
G19	M13
G19	M14
G28	M14
G28	M15
G28	M15
G28	M15
G28	M15
G28	M15
G28	M16
G28	M16
G28	M16
G28	M16
G28	M16
G28	M17
G28	M17
G29	M17
G29	M17
G29	M18
G29	M18
G29	M18
G29	M18
G29	M18
G29	M19
G29	M19
G29	M19
G29	M19
G29	M19
G29	M20

Nicam IF module



G28	C7
G29	C3
1000	B3
1001	A2
1100	A2
1101	A3
1102	A2
1200	A6
1300	C4
1301	A4
1302	B3
1303	B3
2002	B2
2003	B2
2004	A3
2006	C2
2007	A3
2008	B3
2009	B2
2010	A1
2011	B3
2012	A2
2013	C3
2015	C5
2017	A2
2018	C3
2019	B1
2100	A3
2101	A3
2107	A3
2200	A5
2201	B5
2202	A6
2203	A6
2204	B8
2205	C9
2206	C9
2207	C8
2208	C8
2209	C9
2210	B8
2211	A6
2212	C9
2214	A6
2215	B7
2216	C7
2217	B7
2218	B8
2219	C8
2220	C9
2221	C9
2222	A7
2223	B7
2224	A6
2225	A6
2226	A7
2227	C7
2228	B6
2229	A6
2230	B6
2231	B6
2232	A6
2233	A6
2234	B5
2235	C8
2236	B5
2237	C9
2238	B9
2300	B5
2301	A5
2302	A4
2303	A4
2304	A4
2305	C4
2306	C4
2307	C5
2308	C4
2309	B4
2310	C4
2311	C4
2312	B3
2313	B5
2318	A5
2319	A5
2320	B4
2321	A4
2322	B4
2323	B4
2324	B4
2325	A4
2328	B4
2329	C4
2330	C4
2331	C4
2332	C4
2333	B4
2334	A5
2335	A4
2336	A5
2340	A1
2343	A5
2344	A4
2347	B5
3001	B3
3002	B3
3006	B1
3007	C1
3008	B1
3009	C2
3010	C1
3011	A1
3012	A2
3013	A2
3014	A3
3015	A3
3016	A1
3018	B2
3019	B1
3020	A1
3021	A1
3022	C1
3023	B2
3025	B2
3027	C6
3029	B2
3030	C1
3032	C2
3033	C6
3034	C2
3035	C1
3098	C3
3101	A2
3102	A2
3108	A3
3109	A3
3200	C7
3207	A5
3208	B7
3211	C7
3212	A7
3214	B7
3218	C7
3219	C8
3220	B6
3221	C6
3222	C9
3223	C9
3224	C7
3226	A6
3227	A5
3228	A5
3229	B5
3230	B8
3231	B8
3232	B6
3233	C6
3234	C6
3237	B9
3238	C9
3300	A4
3301	A4
3302	A4
3303	B4
3304	C5
3305	C5
3306	C4
3307	C4
3308	B4
3309	C4
3314	B3
3315	A5
3316	B4
3317	A4
3318	B4
3319	B4
3320	B4
3321	B4
3322	B4
3323	B4
3324	B4
3326	B3
3327	B4
3328	B4
3329	B3
3331	C4
3332	C4
3333	A1
3334	A4
3335	A4
3336	A5
3337	A4
3340	B5
3341	A5
4003	C1
4008	A1
4017	B3
4020	A3
4022	C1
4023	A1
4030	C3
4031	A1
4033	B3
4034	C2
4037	A1
4039	C2
4040	C2
4041	A1
4100	A3
4200	C8
4201	B7
4202	C9
4203	A7
4204	A6
4205	A6
4206	A6
4301	B4
4302	B5
4303	A4
4304	B3
5000	C3
5001	A2
5002	A2
5004	A3
5200	B6
5201	B6
5300	C4
5301	C4
6002	C1
6007	C5
6200	B6
6201	C6
6202	B8
6203	B7
6204	C6
6205	A6
6206	C9
6207	C9
6208	B9
6209	C9
6300	B5
6301	C4
6302	A4
7001	C2
7002	B1
7003	B1
7004	A3
7005	B1
7006	A1
7007	C1
7008	C5
7009	C2
7201	C7
7202	C9
7203	C9
7204	C8
7205	A6
7206	B6
7207	B6
7208	B9
7209	C9
7302	B4
7303	B4
7304	C4
7305	A5
7306	A4
7307	A5
9000	C3
9002	C6
9003	A3
9004	C3
9010	B2
9012	C5
9013	B2
9016	C2
9025	A1
9200	B6
9201	B8
9202	B8
9203	C6
9204	C6
9205	B5
9207	B6
9208	B6
9209	B9
9300	B5
9301	A4
9302	A3
9304	A5

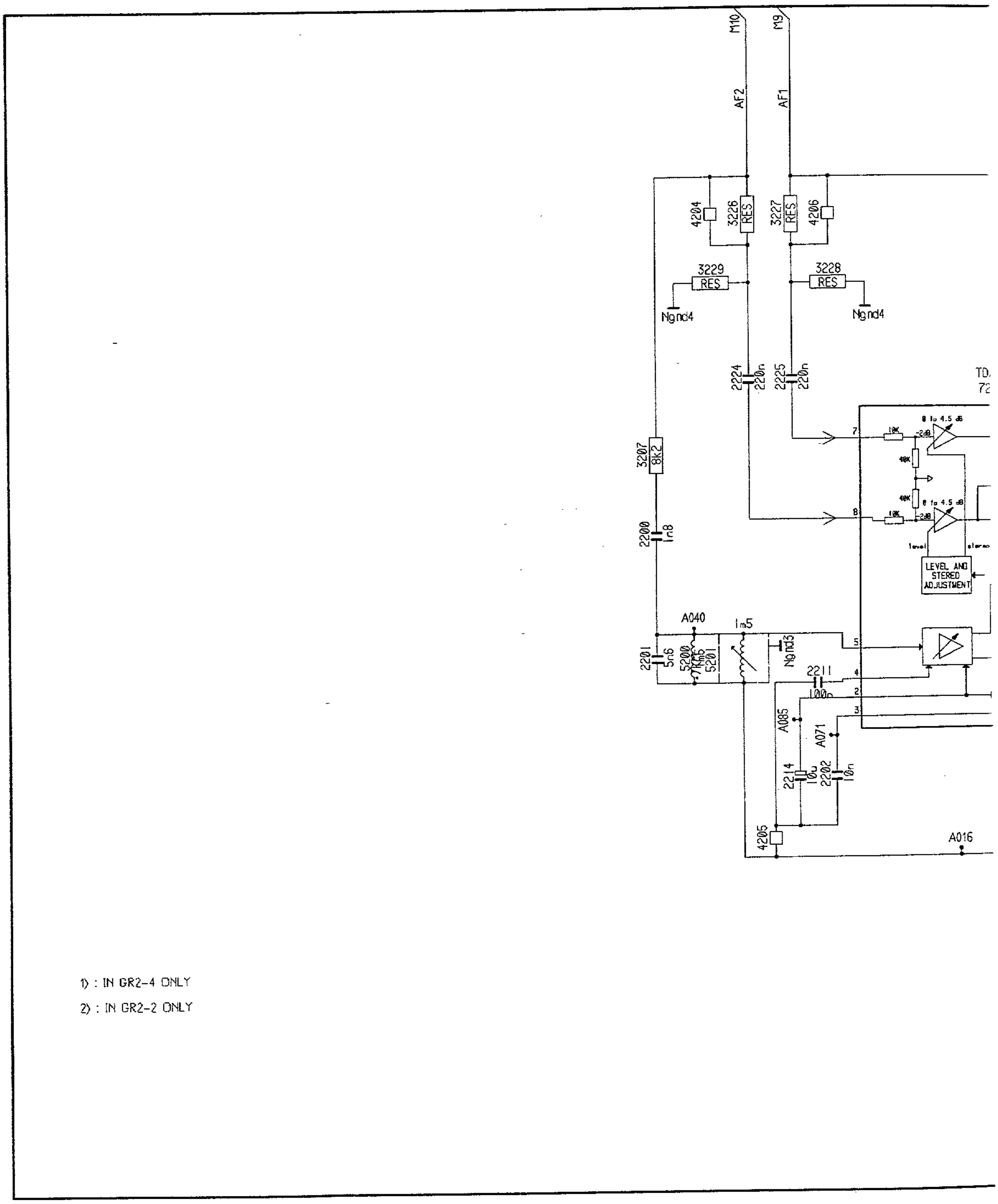
Stereo IF module



1000	C3	3109	B3	9017	C4
1001	B2	3113	C4	9200	B6
1100	A2	3114	D4	9201	C8
1101	A3	3115	C4	9202	C8
1102	B3	3116	C4	9203	D6
1103	C4	3117	D4	9204	D6
1104	C3	3200	D7	9205	C5
1105	C3	3207	B5	9206	D8
1200	B6	3208	C7	9207	C6
2000	C4	3211	C7	9209	C8
2001	C4	3212	B7	G19	B7
2002	B3	3214	C7	G28	D6
2003	B2	3218	C7	G29	D2
2004	B4	3219	C7		
2005	C2	3220	C6		
2006	D1	3221	C6		
2007	B3	3222	D9		
2008	C3	3223	C9		
2009	B1	3224	D7		
2010	B1	3225	D7		
2011	B4	3226	A5		
2014	B4	3227	A5		
2015	D5	3228	B5		
2016	B4	3229	B5		
2017	B2	3230	C8		
2018	C4	3231	C8		
2019	D1	3232	C6		
2020	C4	3233	C6		
2100	B4	3237	C8		
2101	A4	3238	C9		
2102	B3	4000	B2		
2103	B3	4001	C1		
2106	D4	4002	C4		
2107	B4	4003	C1		
2108	D3	4006	D4		
2200	B5	4007	C4		
2201	C5	4008	D3		
2202	B5	4022	B1		
2203	B6	4023	A1		
2204	C8	4034	D2		
2205	D8	4041	A1		
2206	D8	4100	D4		
2207	D8	4101	D3		
2208	D8	4102	D4		
2209	C8	4103	D4		
2210	C8	4104	A4		
2211	B5	4200	D8		
2212	D8	4201	B7		
2214	B5	4202	D9		
2215	C7	4203	B7		
2216	D7	4204	A5		
2217	C7	4205	B5		
2218	C7	4207	D8		
2219	D8	4209	A5		
2220	D9	5000	D4		
2221	C9	5001	B3		
2222	B7	5002	B2		
2223	C6	5004	C4		
2224	B5	5100	C3		
2225	B5	5200	C5		
2226	B7	5201	C5		
2227	C7	6002	C1		
2228	C6	6003	C5		
2229	B6	6007	D5		
2230	C6	6100	D3		
2231	C6	6106	D4		
2232	B6	6107	D4		
2233	B6	6200	C6		
2234	C5	6201	D6		
2235	D7	6202	C7		
2237	D9	6203	C6		
2238	C9	6204	D6		
3000	C4	6206	D9		
3001	B4	6207	D9		
3002	B3	6208	C9		
3003	B4	6209	D9		
3004	B3	7001	C2		
3005	C4	7002	C1		
3006	C1	7003	D1		
3007	C1	7004	B3		
3008	D1	7005	B1		
3009	C1	7006	A1		
3010	C1	7007	C1		
3011	C2	7008	D5		
3012	B2	7009	D2		
3013	B3	7102	C4		
3014	A3	7103	D4		
3015	A3	7104	C3		
3016	B2	7201	D7		
3018	B1	7202	D9		
3019	A1	7203	D9		
3020	A1	7204	C8		
3021	B1	7205	B6		
3022	B1	7206	C6		
3023	D3	7207	C6		
3024	B4	7208	C9		
3025	C2	7209	C9		
3026	D6	9000	B4		
3027	D6	9001	B2		
3029	C2	9002	B3		
3030	C2	9003	C2		
3031	B2	9004	A5		
3032	D2	9005	D2		
3034	D2	9006	B1		
3035	D1	9007	C3		
3098	D3	9008	B2		
3100	A2	9009	D6		
3101	B3	9010	B2		
3102	B2	9011	C3		
3103	C3	9012	D5		
3104	C2	9013	A4		
3106	C4	9014	D5		
3107	C4	9015	D3		
3108	B3	9016	D3		

Stereo IF-Sound module/Stereo ZF-Ton module

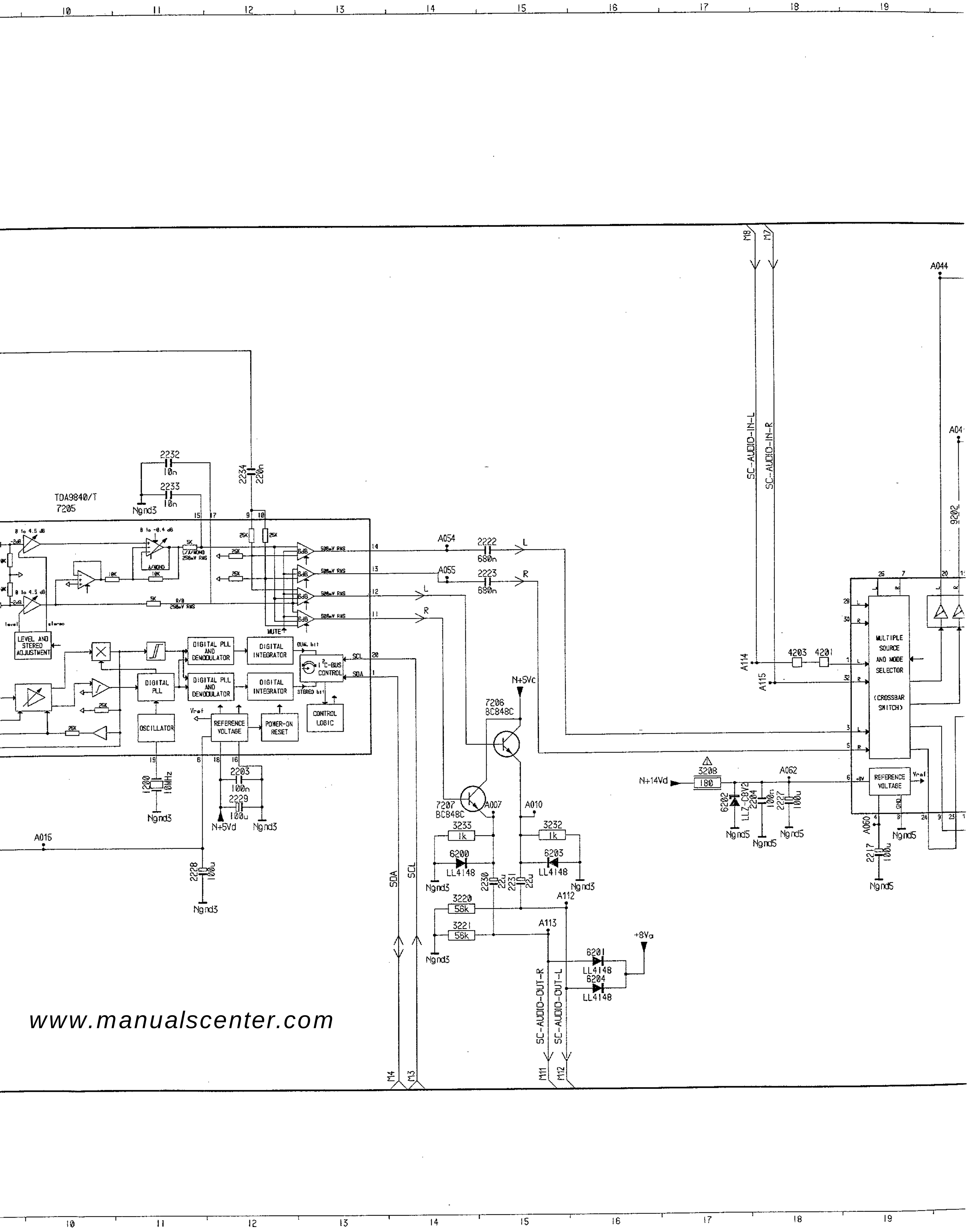
L


M10
M9
AF2
AF1
4204
3226
RES
3227
RES
4206
3229
RES
3228
RES
Ngnd4
Ngnd4
2224
220n
2225
220n
TD.
72
3207
8k2
2200
1n8
A040
1m5
Ngnd3
2201
5n6
5200
5201
2211
100n
A085
A071
2214
10u
2202
10n
4205
A016
10K
48K
8 to 4.5 dB
level
stereo
LEVEL AND STEREO ADJUSTMENT

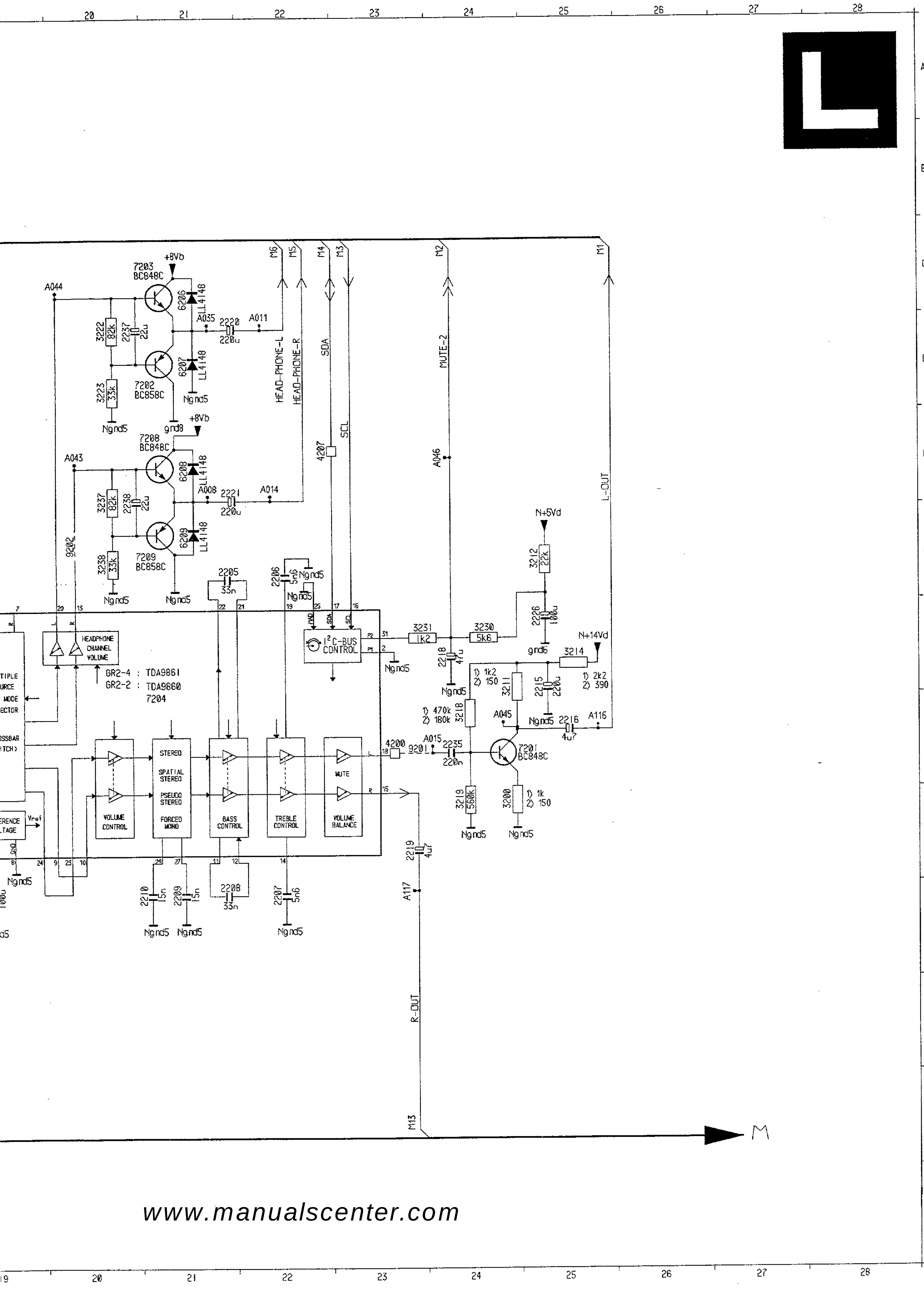
1) : IN GR2-4 ONLY

2) : IN GR2-2 ONLY

Module FI-Son Stereo


10
11
12
13
14
15
16
17
18
19
M8
M7
SC-AUDIO-IN-L
SC-AUDIO-IN-R
A044
A04
9202
TDA9840/T
7205
2232
10n
2233
10n
Ngnd3
2234
220n
15
17
9
10
0 to 4.5 dB
-2dB
0 to -0.4 dB
5K
L/A/MONO
250mV RMS
A/MONO
10K
10K
5K
R/B
250mV RMS
25K
25K
25K
25K
6dB
500mV RMS
MUTE
level
stereo
LEVEL AND STEREO ADJUSTMENT
DIGITAL PLL AND DEMODULATOR
DIGITAL INTEGRATOR
DUAL bit
STEREO bit
I²C-BUS CONTROL
SCL
SDA
20
1
14
13
12
11
DIGITAL PLL
OSCILLATOR
Vref
REFERENCE VOLTAGE
POWER-ON RESET
CONTROL LOGIC
19
6
18
16
1200
10MHz
2203
100n
2229
100u
N+5Vd
A015
2228
100u
A054
2222
680n
L
A055
2223
680n
R
L
R
N+5Vc
7206
BC848C
7207
BC848C
A007
A010
3233
1k
6200
LL4148
3232
1k
6203
LL4148
2230
22u
2231
22u
Ngnd3
3220
56k
A112
3221
56k
A113
+8Va
6201
LL4148
6204
LL4148
SC-AUDIO-OUT-R
SC-AUDIO-OUT-L
SDA
SCL
M4
M3
M11
M12
A114
A115
4203
4201
3208
180
N+14Vd
A062
6202
LLZ-C8V2
2204
100n
2227
100u
Ngnd5
A060
2217
100u
MULTIPLE SOURCE AND MODE SELECTOR
(CROSSBAR SWITCH)
REFERENCE VOLTAGE
+8V
GND
25
7
20
28
30
1
32
3
5
6
4
8
24
9
23

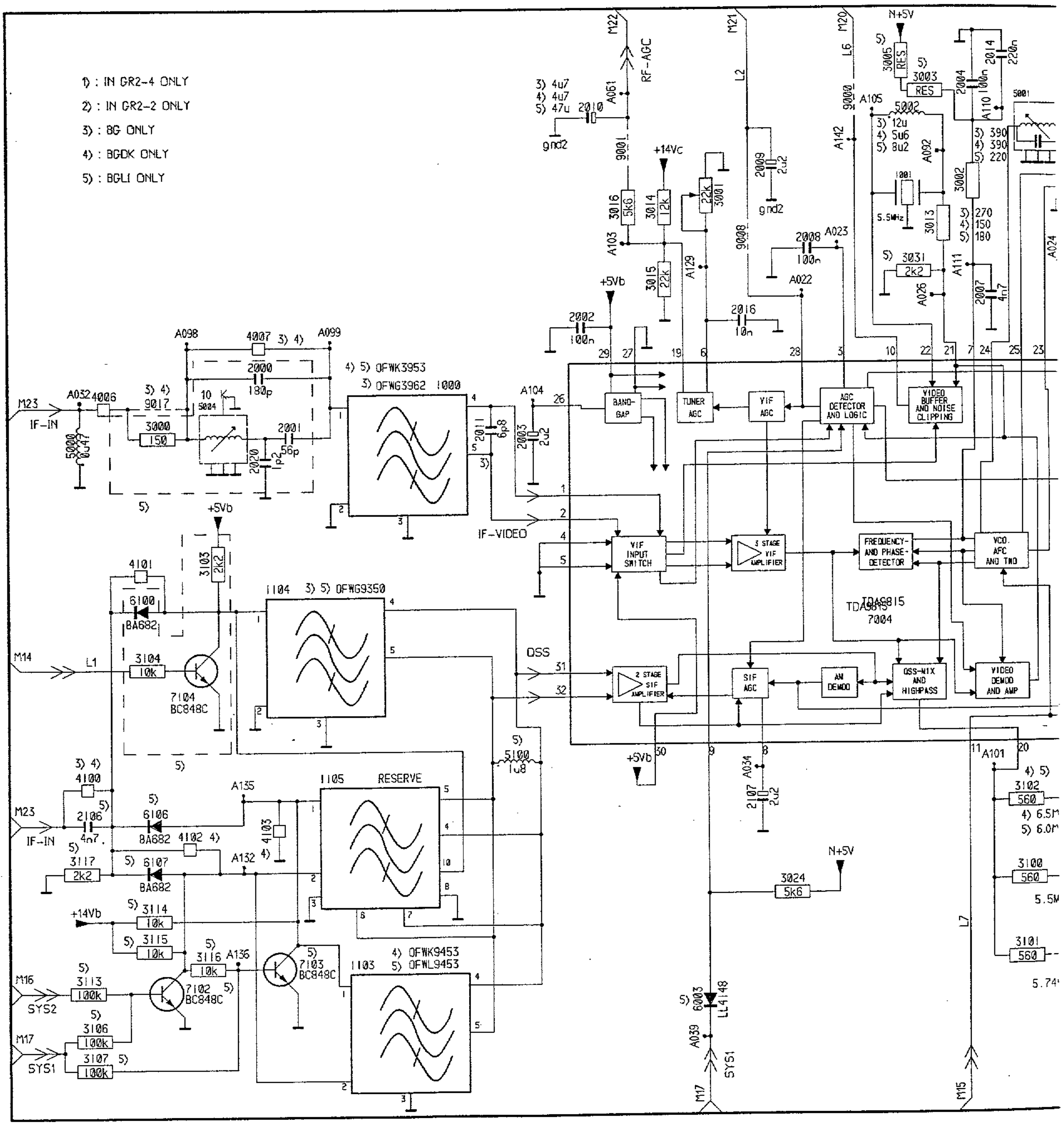
L


20
21
22
23
24
25
26
27
28
19
A
B
C
D
E
F
G
H
I
J
K
L
N
+8Vb
7203
BC848C
A044
6206
LL4148
A035
2220
220u
A011
3222
82k
2237
22u
7202
BC858C
6207
LL4148
3223
33k
Ngnd5
gnd8
7208
BC848C
A043
6208
LL4148
A008
2221
220u
A014
3237
82k
2238
22u
7209
BC858C
6209
LL4148
3238
33k
9202
M6
M5
M4
M3
M2
M1
HEAD-PHONE-L
HEAD-PHONE-R
SDA
SCL
MUTE-2
4207
A046
L-OUT
N+5Vd
3212
22k
2226
100u
gnd6
N+14Vd
3214
1) 2k2
2) 390
2205
33n
2206
5n6
HEADPHONE CHANNEL VOLUME
I²C-BUS CONTROL
GR2-4 : TDA9861
GR2-2 : TDA9860
7204
TIPLE
URCE
MODE
ECTOR
OSSBAR
ITCH)
ERENCE
LTAGE
Vref
VOLUME CONTROL
STEREO
SPATIAL STEREO
PSEUDO STEREO
FORCED MONO
BASS CONTROL
TREBLE CONTROL
MUTE
VOLUME BALANCE
3231
1k2
3230
5k6
2218
47u
1) 1k2
2) 150
3211
2215
220u
1) 470k
2) 180k
3218
A045
2216
4u7
A116
4200
9201
A015
2235
220n
7201
BC848C
3219
560k
3200
1) 1k
2) 150
2219
4u7
A117
2210
15n
2209
15n
2208
33n
2207
5n6
R-OUT
M13
M

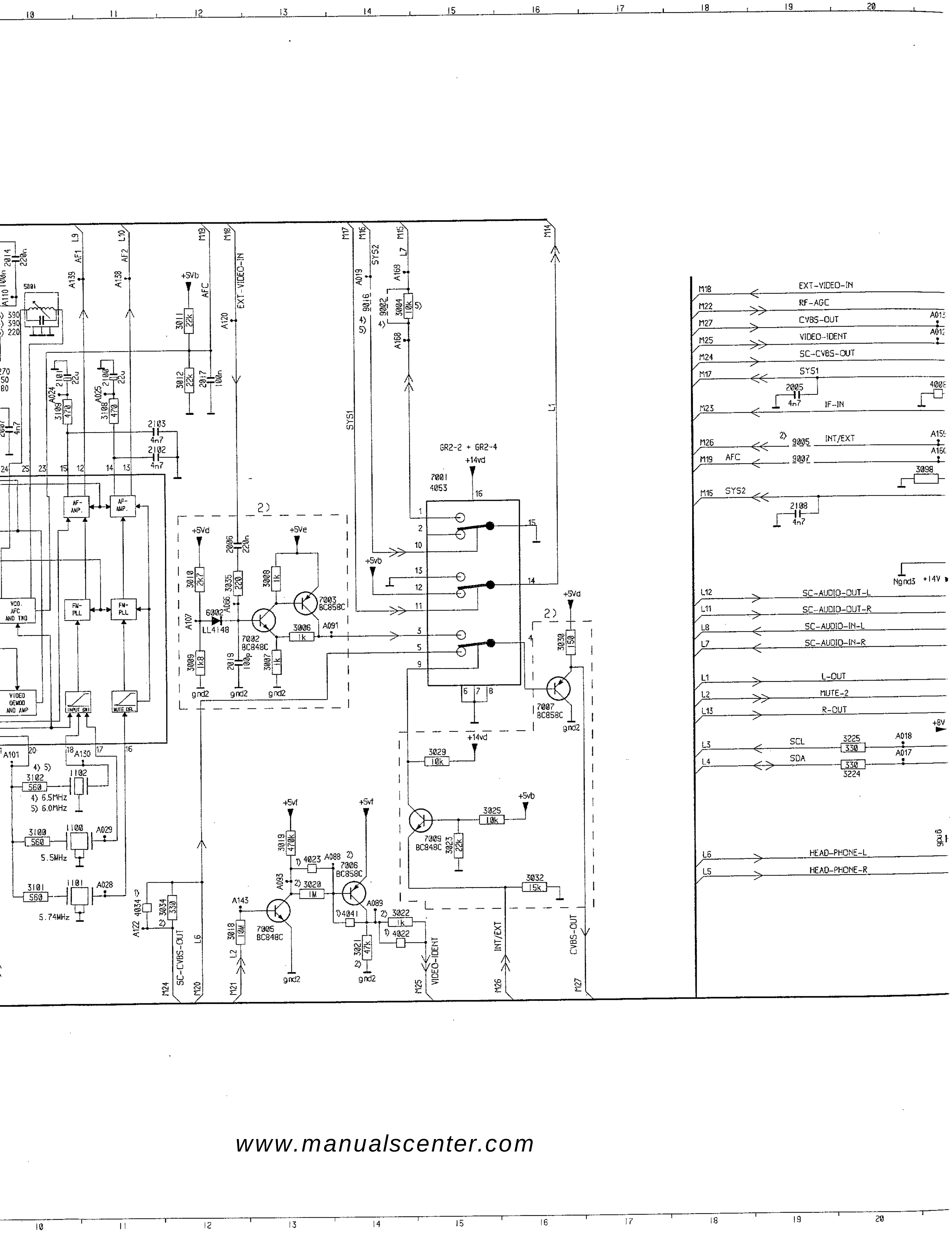
1200	I11
2200	G 7
2201	H 7
2202	I 9
2203	I12
2204	I18
2205	F21
2206	F22
2207	J22
2208	J21
2209	J21
2210	J21
2211	H 9
2214	I 8
2215	G25
2216	H25
2217	J19
2218	G24
2219	I23
2220	D21
2221	E21
2222	F15
2223	G15
2224	F 8
2225	F 8
2226	G25
2227	I18
2228	J11
2229	I12
2230	J15
2231	J15
2232	E11
2233	F11
2234	E12
2235	H24
2237	D20
2238	E20
3200	I24
3207	F 7
3208	I17
3211	G24
3212	F25
3214	G25
3218	H24
3219	I24
3220	J14
3221	J14
3222	D20
3223	D20
3226	D 8
3227	D 8
3228	E 9
3229	E 8
3230	G24
3231	G23
3232	I15
3233	I14
3237	E20
3238	F20
4200	H23
4201	G18
4203	G18
4204	D 8
4205	I 8
4206	D 9
4207	E22
5200	H 8
5201	H 8
6200	J14
6201	K16
6202	I17
6203	J15
6204	K16
6206	C21
6207	D21
6208	E21
6209	F21
7201	H24
7202	D20
7203	C20
7204	H21
7205	F10
7206	H15
7207	I14
7208	E20
7209	F20
9201	H23
9202	F20
A007	I15
A008	E21
A010	I15
A011	D22
A014	E22
A015	H24
A016	I10
A035	D21
A040	H 8
A043	E20
A044	C20
A045	H24
A046	E24
A054	F14
A055	F14
A060	I19
A062	I18
A071	I 9
A085	H 8
A112	J15
A113	J15
A114	H17
A115	H18
A116	H25
A117	J23

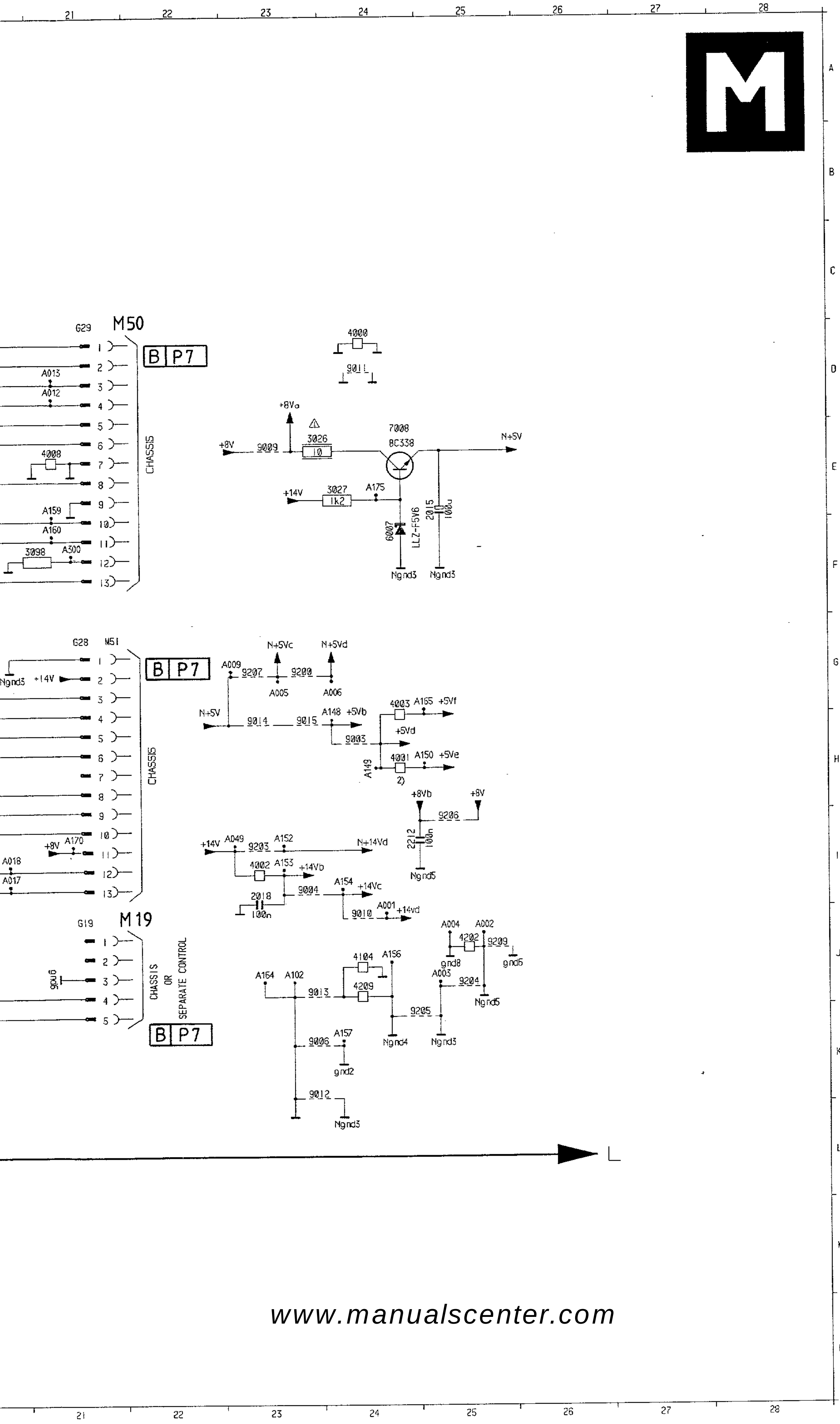
Stereo IF-Sound module/Stereo ZF-Ton module

M


1) : IN GR2-4 ONLY
2) : IN GR2-2 ONLY
3) : BG ONLY
4) : BGDK ONLY
5) : BGLI ONLY
M22
RF-AGC
M21
M20
N+5V
+14Vc
+5Vb
M23
IF-IN
A032
4006
9017
3000
150
5000
0J47
2000
180p
2001
56p
2020
1p2
4007
A098
A099
4) 5) OFWK3953
3) OFWG3962 1000
A104
2011
6p8
2003
2u2
IF-VIDEO
BAND-GAP
TUNER AGC
VIF AGC
AGC DETECTOR AND LOGIC
VIDEO BUFFER AND NOISE CLIPPING
VIF INPUT SWITCH
3 STAGE VIF AMPLIFIER
FREQUENCY- AND PHASE-DETECTOR
VCO, AFC AND TWD
TDA9815
7004
OSS
2 STAGE SIF AMPLIFIER
SIF AGC
AM DEMOD
QSS-MIX AND HIGHPASS
VIDEO DEMOD AND AMP
5.5MHz
1001
5002
3005
RES
3003
2004
100n
2014
220n
3002
3013
3031
2k2
2007
4n7
3016
5k6
3014
12k
3015
22k
3001
22k
2009
2u2
2008
100n
2016
10n
2002
100n
2010
gnd2
M14
L1
3104
10k
7104
BC848C
6100
BA682
4101
3103
2k2
1104 3) 5) OFWG9350
4100
2106
4n7
6106
BA682
4102
4103
6107
BA682
3117
2k2
A135
A132
1105 RESERVE
5100
1u8
+14Vb
3114
10k
3115
10k
3116
10k
A136
7103
BC848C
M16
SYS2
3113
100k
7102
BC848C
M17
SYS1
3106
100k
3107
100k
4) 0FWK9453
5) 0FWL9453
1103
A034
2107
2u2
3024
5k6
6003
LL4148
A039
SYS1
M17
L7
M15
A101
3102
560
3100
560
3101
560

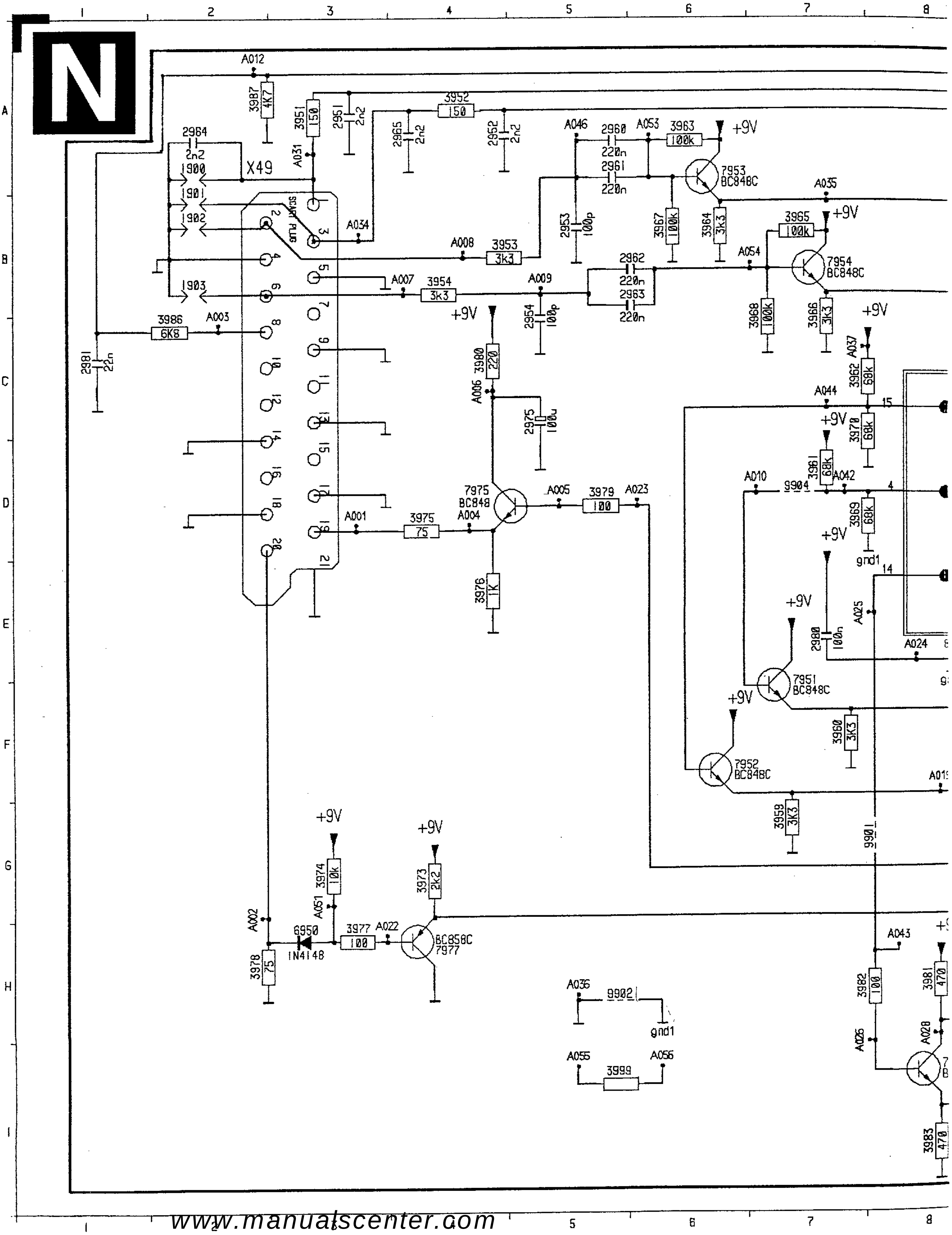
Module FI-Son Stereo

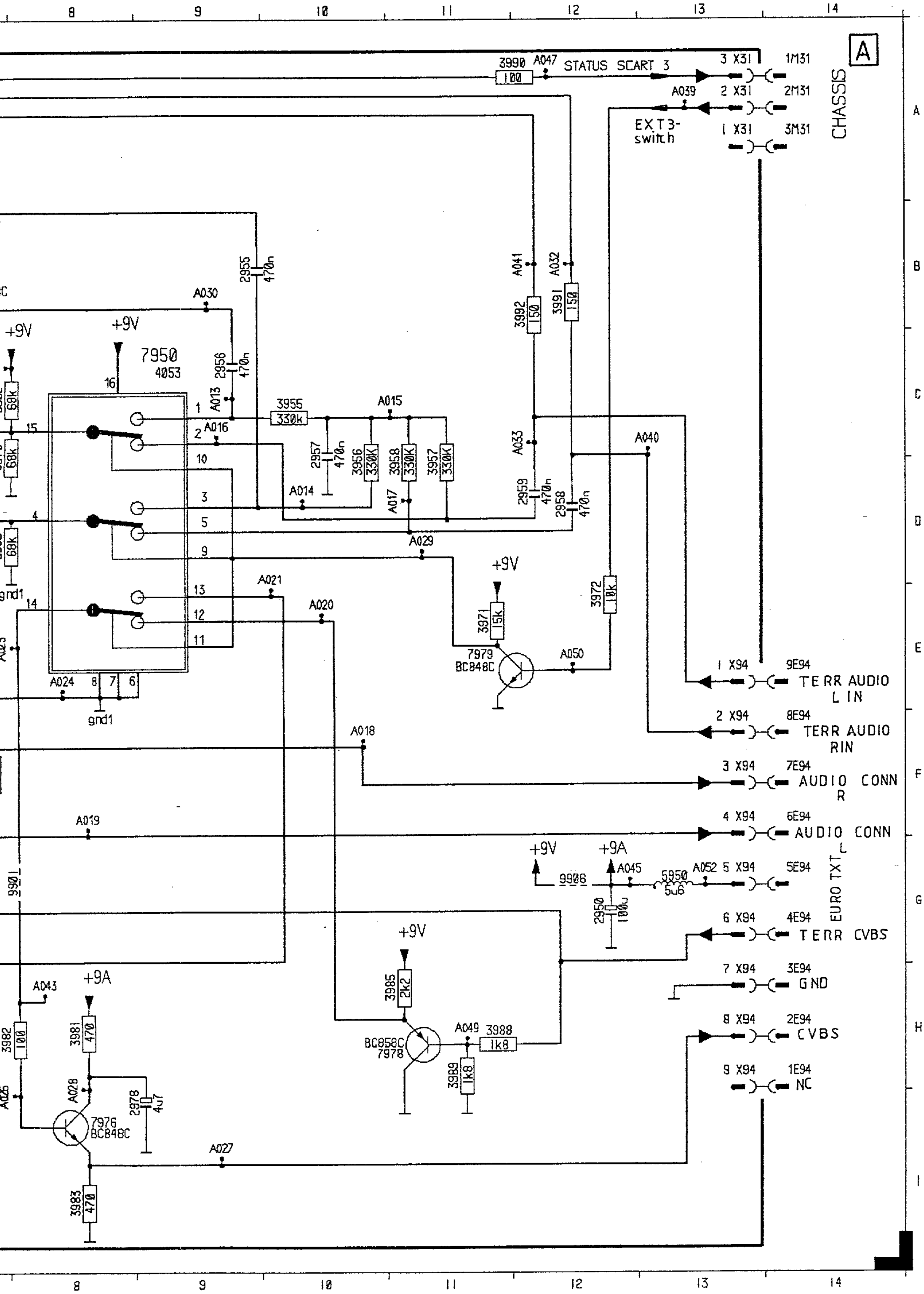

10
11
12
13
14
15
16
17
18
19
20
L9
AF1
A139
L10
AF2
A138
M19
AFC
+5Vb
3011 22k
3012 22k
2017 100n
M18
EXT-VIDEO-IN
A120
M17
M16
SYS2
A019
9016
9002
M15
L7
A169
3004 10k
A168
SYS1
L1
M14
2014 220n
A110 100n
5001
2101 22u
A024
3109 470
2100 22u
A025
3108 470
2103 4n7
2102 4n7
AF-AMP.
FM-PLL
VCO. AFC AND TMO
VIDEO DEMOD AND AMP
INPUT SW
MUTE DEL
A101
A130
3102 560
1102
4) 6.5MHz
5) 6.0MHz
3100 560
1100
A029
5.5MHz
3101 560
1101
A028
5.74MHz
A122
4034
3034 330
SC-CVBS-OUT
M24
L6
M20
+5Vd
3010 2K7
6002
LL4148
A107
3009 1k8
2006 220n
3035 220
A066
2019 100p
+5Ve
3008 1k
7003 BC858C
7002 BC848C
3006 1k
A091
3007 1k
gnd2
GR2-2 + GR2-4
+14vd
7001 4053
3030 150
7007 BC858C
3029 10k
3025 10k
7009 BC848C
3023 22k
3032 15k
+5vb
+5vf
3019 470k
4023
A088
7006 BC858C
A093
3020 1M
A143
7005 BC848C
3018 10M
L2
M21
4041
3022 1k
4022
A089
3021 47k
M25
VIDEO-IDENT
INT/EXT
M26
CVBS-OUT
M27
M18 EXT-VIDEO-IN
M22 RF-AGC
M27 CVBS-OUT
M25 VIDEO-IDENT
M24 SC-CVBS-OUT
M17 SYS1
2005 4n7
IF-IN
M23
M26 9005 INT/EXT
M19 AFC 9007
3098
M16 SYS2
2108 4n7
Ngnd3 +14V
L12 SC-AUDIO-OUT-L
L11 SC-AUDIO-OUT-R
L8 SC-AUDIO-IN-L
L7 SC-AUDIO-IN-R
L1 L-OUT
L2 MUTE-2
L13 R-OUT
+8V
L3 SCL 3225 330 A018
L4 SDA 3224 330 A017
L6 HEAD-PHONE-L
L5 HEAD-PHONE-R


M
21
22
23
24
25
26
27
28
A
B
C
D
E
F
G
H
I
J
K
L
M
N
M50
G29
B P7
CHASSIS
A013
A012
4008
A159
A160
3098
A300
4000
9011
+8Va
3026
10
7008
BC338
+8V
9009
N+5V
+14V
3027
1k2
A175
6007
LLZ-F5V6
2015
100u
Ngnd3
G28
M51
Ngnd3
+14V
A009
9207
9200
N+5Vc
N+5Vd
A005
A006
9014
9015
A148
+5Vb
4003
A165
+5Vf
+5Vd
9003
A149
4001
A150
+5Ve
2)
+8Vb
+8V
9206
2212
100n
Ngnd5
+14V
A049
9203
A152
N+14Vd
4002
A153
+14Vb
2018
100n
9004
A154
+14Vc
9010
A001
+14vd
+8V
A170
A018
A017
M19
G19
gnd6
CHASSIS OR SEPARATE CONTROL
A004
A002
4202
9209
gnd8
gnd6
A003
9204
Ngnd5
A164
A102
9013
4104
A156
4209
9205
Ngnd4
Ngnd3
9006
A157
gnd2
9012
Ngnd3
L

1000	F 5	A001	I24
1001	D 9	A002	J25
1100	J10	A003	J25
1101	K10	A004	J25
1102	I10	A005	G23
1103	K 4	A006	G24
1104	H 4	A009	G23
1105	I 4	A012	D21
2000	F 4	A013	D21
2001	F 4	A017	I20
2002	E 6	A018	I20
2003	F 6	A019	C14
2004	C 9	A022	E 8
2005	E19	A023	E 8
2006	G12	A024	E10
2007	E10	A025	E11
2008	E 8	A026	E 9
2009	D 8	A028	K11
2010	D 6	A029	J11
2011	F 5	A032	F 2
2014	C10	A034	I 8
2015	E25	A039	K 7
2016	E 8	A049	I23
2017	E12	A061	C 7
2018	I23	A066	G12
2019	H12	A088	J13
2020	G 4	A089	K14
2100	E11	A091	H13
2101	E10	A092	D 9
2102	E11	A093	K13
2103	E11	A098	E 3
2106	J 2	A099	E 4
2107	I 8	A101	I10
2108	F19	A102	J23
2212	I24	A103	E 7
3000	F 3	A104	F 6
3001	D 7	A105	D 9
3002	D 9	A107	H12
3003	C 9	A110	D10
3004	D14	A111	E 9
3005	C 9	A120	D12
3006	H13	A122	K11
3007	H13	A129	E 7
3008	G13	A130	I11
3009	H12	A132	J 3
3010	G12	A135	I 3
3011	D12	A136	K 3
3012	E12	A138	C11
3013	E 9	A139	C10
3014	D 7	A142	D 8
3015	E 7	A143	K12
3016	D 7	A148	G24
3018	K12	A149	H24
3019	J13	A150	H25
3020	K13	A152	I23
3021	K14	A153	I23
3022	K14	A154	I24
3023	J15	A156	J24
3024	J 8	A157	K24
3025	J15	A159	E21
3026	E23	A160	F21
3027	E24	A164	J23
3029	I15	A165	G25
3030	H16	A168	D14
3031	E 9	A169	C14
3032	K16	A170	I21
3034	K12	A175	E24
3035	G12	A300	F21
3098	F21	G19	J21
3100	J10	G19	K21
3101	K10	G19	J21
3102	I10	G19	J21
3103	G 3	G19	J21
3104	H 3	G28	G21
3106	K 2	G28	I21
3107	L 2	G28	H21
3108	E11	G28	H21
3109	E10	G28	H21
3113	K 2	G28	H21
3114	J 3	G28	H21
3115	K 3	G28	G21
3116	K 3	G28	G21
3117	J 2	G28	G21
3224	I20	G28	I21
3225	I20	G28	I21
4000	D24	G28	I21
4001	H24	G29	D21
4002	I23	G29	F21
4003	G24	G29	F21
4006	F 2	G29	F21
4007	F 4	G29	E21
4008	E21	G29	E21
4022	K14	G29	E21
4023	J13	G29	E21
4034	K11	G29	E21
4041	K14	G29	D21
4100	I 2	G29	D21
4101	G 3	G29	D21
4102	J 3	G29.	D21
4103	J 4		
4104	J24		
4202	J25		
4209	J24		
5000	F 2		
5001	D10		
5002	D 9		
5004	F 3		
5100	I 6		
6002	G12		
6003	K 7		
6007	F24		
6100	H 3		
6106	J 3		
6107	J 3		
7001	F15		
7002	H12		
7003	G13		
7004	H 9		
7005	K13		
7006	J14		
7007	I16		
7008	E24		
7009	J15		
7102	K 3		
7103	K 4		
7104	I 3		
9000	D 9		
9001	D 7		
9002	D14		
9003	H24		
9004	I23		
9005	E19		
9006	K23		
9007	F19		
9008	E 8		
9009	E23		
9010	J24		
9011	D24		
9012	K23		
9013	J23		
9014	H23		
9015	H23		
9016	D14		
9017	F 3		
9200	G23		
9203	I23		
9204	J25		
9205	K24		
9206	I25		
9207	G23		
9209	J25		

Third scart module


N
X49
SCART PLUG
3987 4K7
3951 150
2951 2n2
3952 150
2965 2n2
2952 2n2
2964 2n2
1900
1901
1902
1903
A012
A031
A034
A046
2960 220n
A053
3963 100k
+9V
2961 220n
7953 BC848C
A035
2953 100p
3967 100k
3964 3k3
3965 100k
7954 BC848C
A054
A008
3953 3k3
A007
3954 3k3
A009
2954 100p
2962 220n
2963 220n
3968 100k
3966 3k3
3986 6K8
A003
2981 22n
+9V
3980 220
A006
2975 100u
A037
3962 68k
A044
15
3970 68k
3961 68k
A042
A010
9904
4
3969 68k
gnd1
14
7975 BC848
A005
3979 100
A023
A001
3975 75
A004
3976 1K
A025
2980 100n
A024
7951 BC848C
3960 3K3
7952 BC848C
3959 3K3
9901
+9V
3974 10k
A051
3973 2k2
A002
6950 1N4148
3977 100
A022
BC858C 7977
3978 75
A043
3982 100
3981 470
A026
A028
3983 470
A036
9902
gnd1
A055
3999
A056
1 2 3 4 5 6 7 8
A B C D E F G H I


8
9
10
11
12
13
14
A
CHASSIS
3990
100
A047
STATUS SCART 3
3 X31
1M31
A039
2 X31
2M31
EXT3-switch
1 X31
3M31
2955
470n
A041
A032
3992
150
3991
150
A030
+9V
+9V
7950
4053
16
2956
470n
A013
68k
68k
68k
15
1
2
10
3
5
4
9
13
12
11
14
A016
3955
330k
A015
2957
470n
3956
330K
3958
330K
3957
330K
A014
A017
A033
2959
470n
2958
470n
A040
A029
A021
A020
+9V
3971
15k
3972
10k
7979
BC848C
A050
A024
8
7
6
gnd1
gnd1
1 X94
9E94
TERR AUDIO L IN
2 X94
8E94
TERR AUDIO RIN
A018
3 X94
7E94
AUDIO CONN R
A019
4 X94
6E94
AUDIO CONN L
+9V
+9A
9906
A045
5950
5u6
A052
5 X94
5E94
2950
100u
EURO TXT
6 X94
4E94
TERR CVBS
9901
+9V
3985
2k2
7 X94
3E94
GND
A043
+9A
3982
100
3981
470
BC858C
7978
A049
3988
1k8
3989
1k8
8 X94
2E94
CVBS
A026
A028
2978
4u7
7976
BC848C
9 X94
1E94
NC
A027
3983
470
A023

1900	A 2
1901	B 2
1902	B 2
1903	B 2
2950	G12
2951	A 3
2952	A 4
2953	B 5
2954	C 5
2955	B 9
2956	C 9
2957	C10
2958	D12
2959	D12
2960	A 5
2961	A 5
2962	B 6
2963	B 6
2964	A 2
2965	A 4
2975	C 5
2978	I 9
2980	E 7
2981	C 1
3951	A 3
3952	A 4
3953	B 4
3954	B 4
3955	C10
3956	D10
3957	D11
3958	D11
3959	G 7
3960	F 7
3961	D 7
3962	C 7
3963	A 6
3964	B 6
3965	B 7
3966	C 7
3967	B 6
3968	C 7
3969	D 7
3970	C 7
3971	E11
3972	E12
3973	G 4
3974	G 3
3975	D 4
3976	E 4
3977	H 3
3978	H 2
3979	D 5
3980	C 4
3981	H 8
3982	H 7
3983	I 8
3985	H11
3986	C 2
3987	A 1
3988	H11
3989	H11
3990	A12
3991	B12
3992	B12
3999	I 5
5950	G13
6950	H 3
7950	C 9
7951	F 7
7952	F 6
7953	A 6
7954	B 7
7975	D 4
7976	I 8
7977	H 4
7978	H11
7979	E11
9901	G 8
9902	H 5
9904	D 7
9906	G12
A001	D 3
A002	G 2
A003	C 2
A004	D 4
A005	D 5
A006	C 4
A007	B 4
A008	B 4
A009	B 5
A010	D 7
A012	A 2
A013	C 9
A014	D10
A015	C11
A016	C 9
A017	D11
A018	F10
A019	F 8
A020	E10
A021	D10
A022	H 3
A023	D 6
A024	E 8
A025	E 7
A026	I 7
A027	I 9
A028	H 8
A029	D11
A030	B 9
A031	A 3
A032	B12
A033	C12
A034	B 3
A035	A 7
A036	H 5
A037	C 7
A039	A13
A040	C13
A041	B12
A042	D 7
A043	H 8
A044	C 7
A045	G12
A046	A 5
A047	A12
A049	H11
A050	E12
A051	G 3
A052	G13
A053	A 6
A054	B 7
A055	I 5
A056	I 6
X31	A13
X31	A13
X31	A13
X49	A 2
X94	E13
X94	F13
X94	F13
X94	F13
X94	G13
X94	G13
X94	H13
X94	H13
X94	H13

7. Electrical adjustments

Setting conditions

All electrical settings should be made under the following conditions:

- * supply voltage: 220 - 240 V ± 10%;
  50 Hz ± 5%
- * warming-up time ≈ 10 minutes
- * the voltages and oscillograms have been measured with regard to tuner earth.
- * measuring probe: Ri > 10 MΩ; Ci < 2.5 pF.

1. Settings on the carrier board

1.1 +148V/+95V supply voltage

Connect a voltmeter over C2631. Using R3635, set the supply voltage to +148V ± 0.5V for 25" and 28" units or to 95V ± 0.5V for 21" units.

1.2 Focusing

This is set using the focusing potentiometer (on the top of the line output transformer).

1.3 Vg2 setting

Connect a pattern generator and supply a blanking frame signal (black picture). Switch the unit to the service default mode (see section 9).
Connect an oscilloscope to the emitters of transistors 7304 and 7364 on the picture tube module. Set the oscilloscope to frame frequency. Measure the DC voltage level of the measuring pulses (see Fig. 7.2).
Using the Vg2 potentiometer on the line output transformer, set the measuring pulse with the lowest DC voltage level to:

- * +130V ± 5V for all sets.

1.4 Horizontal synchronization

Connect pin 5-IC7470 to pin 9-IC7470.
Supply an aerial signal and tune the set.
Adjust in service menu(see section 9), sync.freq.by means of the menu +/- button until the picture is straight. Remove the interconnection.

1.5 Horizontal centring

Set using potentiometer 3461.

1.6 Vertical centring

Set using potentiometer 3516.

1.7 Picture height

Set using potentiometer 3504.

1.8 Picture width

Set using potentiometer 3525.

1.9 East/west correction

Is adjusted with potentiometer 3521

1.10 Chroma bandpass filter

a. Setting for PAL/SECAM sets (TDA4657)

Connect a signal generator (e.g. PM 5138) to pin 20 of the euroconnector (EXT1) and set its frequency to 4.286 MHz/0.5 Vpp. Switch the unit to EXT1.
Connect pin 18-IC7306 to +12V. Connect an oscilloscope to pin 9-IC7306.
Set 5301 to maximum amplitude.
Remove the interconnection.

b. Setting for PAL sets (TDA4510)

Connect a signal generator (e.g. PM 5138) to pin 20 of the euroconnector (EXT1) and set its frequency to 4.436 MHz/0.5Vpp. Connect the unit to EXT1.
Connect an oscilloscope to pin 9-IC7305 (TDA4510).
Set 5301 to maximum amplitude

1.11 Chroma auxiliary oscillator

Connect a pattern generator and supply a PAL colour bar pattern. Connect pin 11-IC7305 (TDA4510) to earth. Set 2313 so that the colour on the screen has practically stopped. Remove the interconnection.

1.12 White balance

Connect a pattern generator and select a white picture. Switch on the service menu (see section 9) and select "WHITE BALANCE".
Set the value of "Green" to 50(G/AMP), and the Value of "Blue" to 45(B/AMP). Value of "Red" to 57(R/AMP).
In most cases no futher adjustments are required.

1.13 Peak white limiter

Switch on the service menu (see section 9) and select "WHITE BALANCE".
Set "WH/LIM" to the value:

- 35 for blackline units
- 51 for non-blackline units
- 63 for 21" 110 degree sets.
- 45 for 29" sets

1.14 Cut-off points of the picture tube

Connect a pattern generator and select a black picture. Switch on the service menu (see section 9) and select "CUT OFF".
Set the value of "Red" to 30, and fore "Green" to 30, and for "Blue" to 30. In most cases no futher adjustments are required.

1.15 Options

Switch on the service menu and select "OPTIONS" or "OPTION 1".
Switch the options "ON" and "OFF" according to whether the following options are present:

- "THIRD SCART" on a set with third scart.
- "TELETEXT" on a teletext set
- "MULTI SYSTEM" for multisystem sets
- "UHF ONLY" for a tuner which can only be tuned to the UHF band
- "NICAM" for stereo sets which can also receive NICAM sound.

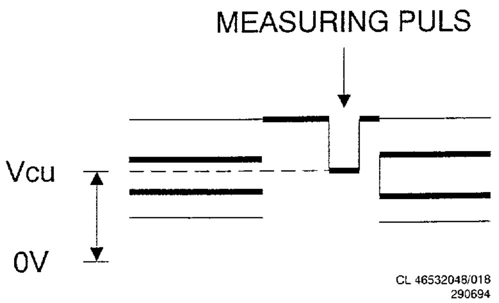


Fig. 7.2

2.1 RF-AGC
If the picture from a strong local transmitter is distorted, adjust 3016 until the picture is not distorted.

2.2a MF-AFC For multi system sets (PAL-BG/SECAM-DK).
Connect a pattern generator to pin 8 of connector G29 (IF-module) and select a frequency of 38,9 MHz. Connect a voltmeter to pin 11 of connector G29.
Adjust with 5001 the DC voltage to 1.9 V.

2.2b MF-AFC For all other sets.
Connect a pattern generator to pin 8 of connector G29 (IF-module) and select a frequency of 38,9 MHz. Connect a voltmeter to pin 11 of connector G29.
Adjust with 5001 the DC voltage to 2.3 V.

2.3 Stereo matrix
Connect a pattern generator and supply a PAL BG signal with stereo sound. Select only the right-hand channel sound. Go into service mode. Choose SND stereo and pull out the right connector (seen from the front side of the set). Put volume maximum with volume button. Align with menu-button so that the sound is just not hearable in the left loudspeaker. Leave now the service mode by putting the set in standby.

8. Survey of error messages on the screen

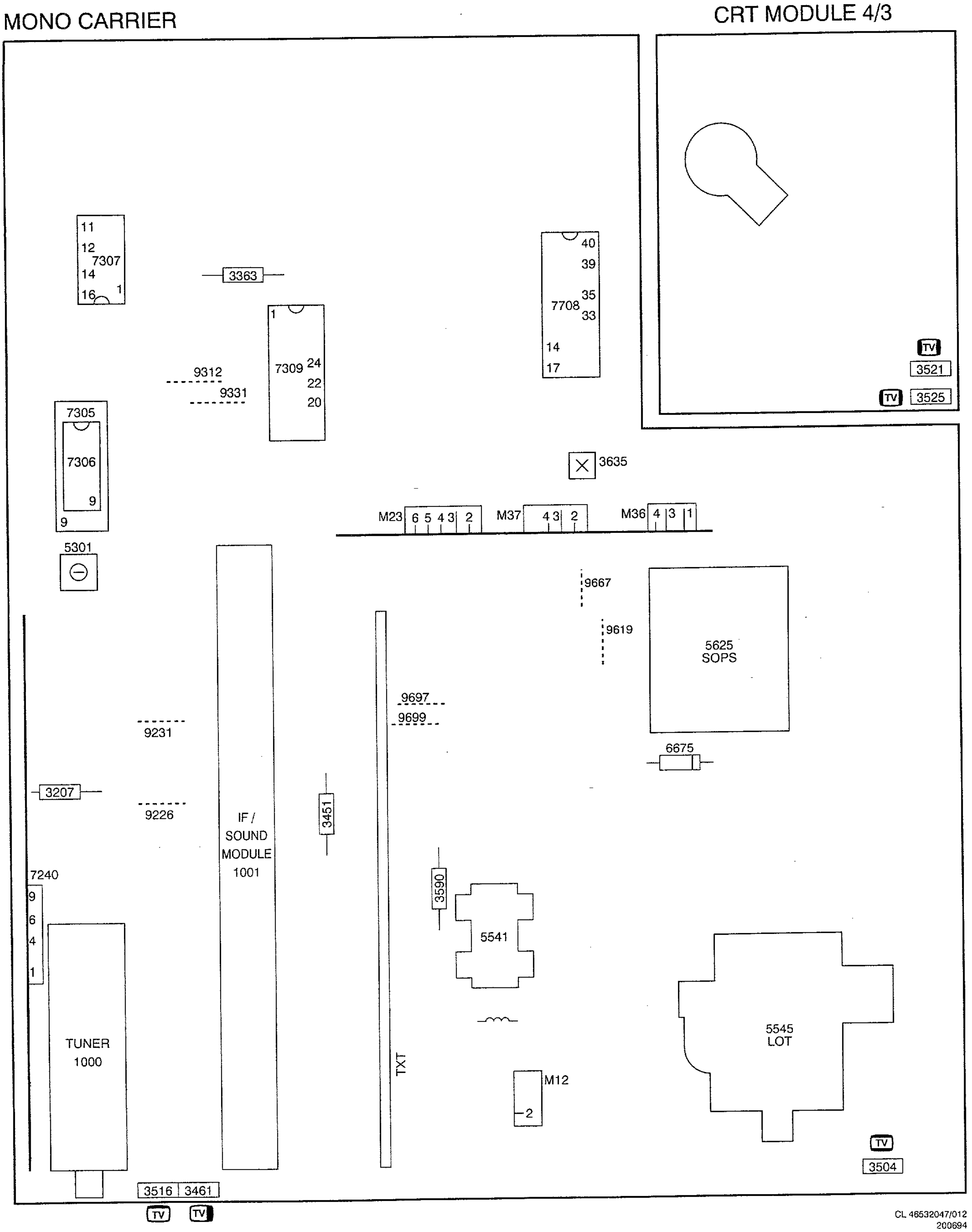
Message on screen	Description	Possible fault
PIP	I^2C error PIP module	+5 on PIP module, IC7406
NICA	I^2C error IC7305 (NICAM sets)	IC7305, +5 on IF module
9860	I^2C error IC7204	+5/+8 on IF module, IC7305
9840	I^2C error IC7205	+5/+8 on IF module, IC7205
TXT	I^2C error teletext module	IC7910/IC7920 , +5 on TEXT module
EPROM	I^2C error IC7710	IC7708/IC7710, +5 on IC's
TUNE	I^2C error tuner	+5/+14 on tuner, TS7003
CHR1	I^2C error IC7308	+14 on IC7308
CHR2	I^2C error IC7309	+14 on IC7309
6415	I^2C error IC7820	
BUS + blinking LED	I^2C bus blocked	I^2C bus check on all IC's

Error messages

Internal microcomputer errors and external errors will be signalled by displaying the error number (by OSD) and by continuous blinking the LED (video related errors only).

The last five errors will be remembered in the non volatile memory (if possible), this is called the error buffer. After a startup of the system (on by main switch or on from standby) only one error will be added to the buffer (first in, first out procedure), only errors different from the last error in the buffer, will be added to this buffer.
The error will be cleared when the "standby" command is given while the system is in service menu mode.
An active error is displayed continuously in service default mode. The buffer is shown in the service menu mode (Service main menu).

Electrical adjustments


MONO CARRIER
CRT MODULE 4/3
11
12
7307
14
16
1
3363
7309
1
24
22
20
7708
40
39
35
33
14
17
9312
9331
7305
7306
9
9
3521
3525
TV
TV
3635
M23
6 5 4 3 2
M37
4 3 2
M36
4 3 1
5301
9667
9619
5625
SOPS
9697
9699
9231
6675
3207
9226
IF / SOUND MODULE 1001
3451
3590
7240
9
6
4
1
5541
TUNER 1000
TXT
5545
LOT
M12
2
TV
3504
3516
3461
TV
TV

CL 46532047/012
200694

9. Directions for use

1. Service-Default-Mode

The GR2.4 is equipped with a service default mode.
The service default mode is a fixed defined condition in which the television can be set.

1.1 Mode definition

The definition of the fixed mode in the service default mode is as follows:

- all sound and picture adjustments are set in the middle position (except volume, which is set at low and zoom set at zero) in 4/3 mode.
- The set is tuned to 475.25 MHz
- system:

* PAL BG or PAL I for single system sets (MULTI-SYSTEM "OFF")
* SECAM L/DK for multi-system sets (MULTI-SYSTEM "ON")
* SECAM DK for sets for Eastern Europe (MULTI-SYSTEM "ON").
* PAL BG for sets for Eastern Europe (MULTI-SYSTEM "OFF").

1.2 Service-default-mode

The service default mode is switched on by briefly short-circuiting the pins M33 and M34 (SERVICE) behind the INSTALL key on the carrier panel when switching the unit on with the mains switch. In order to indicate that the unit is in the service default mode, an "SER" appears on the screen.
The service default mode can only be switched off by switching the unit to standby (⏻). The set is switched off and then on again using the mains switch or mains plug, the service default mode remains switched on.
Searching for transmitter frequencies begins following the simultaneous pressing of both "install" keys on the remote control. When the service default mode is operational the following functions are switched off:
- automatic cut-off circuit.

The set can be controlled normally.

1.3 Service menu

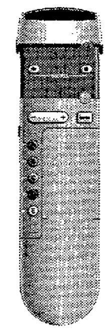
- Service menu
  The service menu is activated by simultaneously pressing the "menu" and "-" keys on the local operating panel. The service menu now appears on the screen. The service menu offers the facility to set various options and make a number of picture tube settings. The various components in the service menu are selected using the coloured keys on the remote control.The adjustment of the various components is performed with the aid of the "menu +/-" keys on the remote control. The adjusted values and options are immediately stored in the EEPROM when the service menu is exited via "menu on" or "mainsknob" button. With the "menu" key you return to the "default service mode".

Remarks 1:
If a multi-system set is nevertheless to be used with the PAL BG system in the service default mode, the option "MULTI" can be temporarily switched off ("OFF").

Remarks 2:
If a multi-system set for Eastern Europe is nevertheless to be used with the PAL BG system in the service default mode, the option "MULTI" can be temporarily switched off ("OFF").

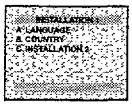
9. Directions for use

Calling up the installation menu



This menu enables you to tune in the channels on the TV set.

- ○ Open the flap on the remote control.
- ○ Press both the ⊕ and ◉ keys at the same time.
- ▻ The **INSTALLATION 1** menu appears on the screen.

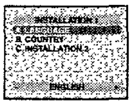

INSTALLATION 1
A LANGUAGE
B. COUNTRY
C. INSTALLATION 2

Selecting the menu language

You may choose between several languages for the menus which appear on the screen.
You can select **ENGLISH** or one of the other languages offered.

After calling up the **INSTALLATION 1** menu:

- ○ Press the red key Ⓐ.
- ▻ A display area appears at the bottom of the screen.
- ○ Press the (− +) key to select your chosen language.
- ▻ The text for all menus will appear in the language which you have chosen. Go on to the next adjustment.

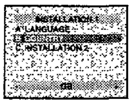

INSTALLATION 1
B. COUNTRY
C. INSTALLATION 2
ENGLISH

Selecting the country

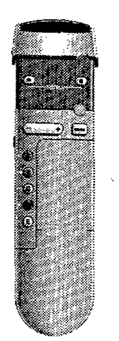
You should now select the country in which you are situated.

After calling up the **INSTALLATION 1** menu:

- ○ Press the green key Ⓑ.
- ▻ A display area appears at the bottom of the screen.
- ○ Press the (− +) key to select the letters corresponding to your country (GB for Great Britain).
- ▻ Your choice is displayed at the bottom of the screen. You can now go on to **chapter** 7 on page 4.

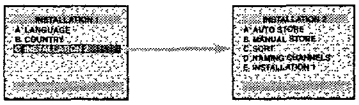

INSTALLATION 1
A LANGUAGE
B. COUNTRY
C. INSTALLATION 2
GB

Tuning-in TV channels



Starting from the **INSTALLATION 1** menu:

- ○ Press the yellow key Ⓒ.
- ▻ The **INSTALLATION 2** menu appears on the screen.


INSTALLATION 1
A LANGUAGE
B. COUNTRY
C. INSTALLATION 2
INSTALLATION 2
A AUTO STORE
B. MANUAL STORE
C. SORT
D. NAMING CHANNELS
E. INSTALLATION 1

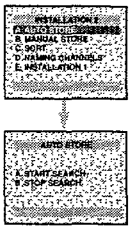
You have the choice between two methods:

- **automatic store:** the TV set stores all the available channels in your area. You just have to renumber the channels according to your preference.
- **manual store:** you can manually tune-in each channel, one by one.

Automatic store

After calling up the **INSTALLATION 2** menu (see above):

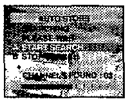
- ○ Press the red key Ⓐ.
- ▻ The **AUTO STORE** menu appears.
- ○ Press the red key Ⓐ to start the search.
- ▻ The indication **SEARCHING PLEASE WAIT** appears on the screen. The TV set searches through the complete frequency range and stores all the TV channels which it finds. **The search takes several minutes.** A horizontal scale shows the progress of the search. **You must wait until the horizontal bar has reached the end of the line.**


INSTALLATION 2
A AUTO STORE
B. MANUAL STORE
C. SORT
D. NAMING CHANNELS
E. INSTALLATION 1
AUTO STORE
A. START SEARCH
B. STOP SEARCH

When the search has finished:

The indication **CHANNELS FOUND** flashes. The total number of TV channels found is displayed. The TV channels have been numbered in the order in which they were found. You must therefore sort them to give them the desired channel numbers.

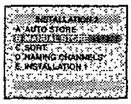
- ○ Press the ▤ key.
- ▻ The **INSTALLATION 2** menu reappears. You now have to sort the channels: turn **to chapter** 8 on page 7.


AUTO STORE
CHANNELS FOUND

Manual store

After calling up the **INSTALLATION 2** menu (see previous page):

- ○ Press the green key Ⓑ.
- ▻ The **MANUAL STORE** menu appears.

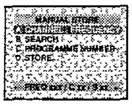

INSTALLATION 2
A AUTO STORE
C. SORT
D. NAMING CHANNELS
E. INSTALLATION 1

step a

Selecting the tuning mode

This TV set allows you to choose the tuning mode: **tuning by channel number** (if you know the channel numbers on which the TV channels are broadcast) or **tuning by frequency**.

- ○ Press the red key Ⓐ.
- ▻ The lower bar of the menu is displayed in red.
- ○ Press the (− +) key to select the tuning mode.
- ▻ The indication **FREQ xxx MHZ** means tuning by frequency. The indication **C xx** or **S xx** means tuning by channel number. **Go on to step b.**


MANUAL STORE
B. SEARCH
C. PROGRAMME NUMBER
D. STORE
FREQ xxx / C xx / S xx

Direct selection of a transmitter

If you know the frequency or the channel number of the TV programme which you wish to receive, you can directly enter the number using the keys numbered ⓪ to ⑨ or the (− P +) key.
For example: in tuning by frequency mode, enter 064 for 64 MHz; in tuning by channel number mode, enter 21 for C21 (for 64,25 MHz, enter 064: the exact adjustment is carried out automatically).
Go directly to **step C**.

step b

Search

- ○ Press the green key Ⓑ.
- ▻ The lower bar of the menu is displayed in green, the search starts. The frequency or channel number counts upwards. As soon as a TV channel is found, the counting stops and the rectangle is displayed in blue.

If you want to store this channel, **go on to step C**.

If you do not want to store the channel:

- ○ Press the green key Ⓑ again.
- ▻ The search continues.

MANUAL STORE
A CHANNEL / FREQUENCY
CHANNEL / FREQUENCY

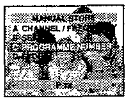
Fine tuning

If the reception of a TV channel is not satisfactory, you can adjust its frequency or channel number by using the (− +) key.

step c

Numbering the programme

- ○ Press the yellow key Ⓒ.
- ▻ A display area appears at the bottom of the screen.
- ○ Press the (− P +) key or the keys numbered ⓪ to ⑨ to enter the programme number. Go on to **step** d.


MANUAL STORE
A CHANNEL / FRE
C. PROGRAMME NUMBER

step d

Storing

- ○ Press the blue key Ⓓ.
- ▻ The indication **PROGRAMME STORED** appears at the bottom of the screen, the TV channel is stored.

MANUAL STORE
A CHANNEL / F
D. STORE
PROGRAMME STORED

repeat

steps **b**, **c**, **d**
or **a**, **b**, **c**, **d** if you want to change the tuning mode.

When tuning-in of TV channels is completed

- ○ Press the ▤ key.
- ▻ The **INSTALLATION 2** menu reappears.

You can now give names to the TV channels: turn to **chapter** 9 on page 8.

To exit from the INSTALLATION 2 menu:

- ○ Press the ▤ key again.

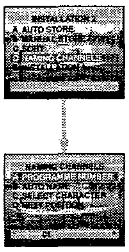
You can now proceed with operating the TV set (page 9).

Naming channels

You can give a name of up to 5 characters to each of the first 40 channels on your TV set (examples: BBC1, CNN...). This function allows you to recognise and display the name and number of the programme being watched.

Starting from the **INSTALLATION 2** menu:

○ Press the blue key Ⓓ.
▷ The **NAMING CHANNELS** menu appears.


INSTALLATION 2
A AUTO STORE
C SORT
D NAMING CHANNELS
NAMING CHANNELS
A PROGRAMME NUMBER
B AUTO NAME
C SELECT CHARACTER
D NEXT POSITION
01

step a Programme number

○ Press the red key Ⓐ.
▷ The programme number is displayed at the bottom of the screen.

○ Use the [− +] key or the keys numbered ⓪ to ⑨ to select the channel to which you want to give a name.

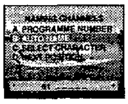
step b Auto name

The **AUTO NAME** function enables you to automatically assign the first 5 characters of a name to a TV channel when teletext is available.

When the TV channel is on the screen:

○ Press the green key Ⓑ.
▷ The lower bar of the menu is displayed in green.

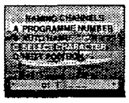
○ Press the [− +] key to carry out the **AUTO NAME**.
▷ The first 5 characters of the programme name are displayed. If nothing is displayed, this means that the programme name is not broadcast, go on to **step C**.


NAMING CHANNELS
A PROGRAMME NUMBER
B AUTO NAME
C SELECT CHARACTER
D NEXT POSITION
01

step c Select character

○ Press the yellow key Ⓒ.
▷ The character display area appears. A cursor is positioned at the first character.

○ Use the [− +] key to select the first character.

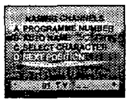

NAMING CHANNELS
A PROGRAMME NUMBER
B AUTO NAME
C SELECT CHARACTER
D NEXT POSITION
01 T

step d Next position

When the desired character has been chosen:

○ Press the blue key Ⓓ to enable the cursor to be moved.
▷ Use the [− +] key to move the cursor to the left or to the right.

○ Press the yellow key Ⓒ again.
▷ Use the [− +] key to choose the second character. Repeat the operation as many times as needed to select all characters.


NAMING CHANNELS
A PROGRAMME NUMBER
B AUTO NAME
C SELECT CHARACTER
D NEXT POSITION
01 TV

repeat steps **a**, **b**, **c** and **d** for all the TV channels you wish to name

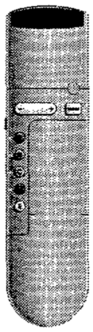
To exit from the NAMING CHANELS menu:

○ Press the ▤ key.
▷ The **INSTALLATION** 2 menu reappears.

To exit from the INSTALLATION 2 menu:

○ Press the ▤ key again.

Calling up the main menu



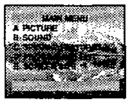
The main menu gives you access to the adjustments and special features of your TV set.

The ▤ key enables you to call up or to exit from the menu.

The coloured keys Ⓐ, Ⓑ, Ⓒ, Ⓓ and Ⓔ allow access to the various choices within the menus. The [− +] key enables you to make the adjustments.

To call up the MAIN MENU:

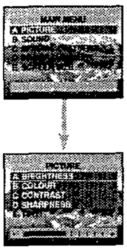
○ Press the ▤ key on the remote control.
▷ The **MAIN MENU** appears on the screen.


MAIN MENU
A PICTURE
B SOUND

Adjusting the picture

After calling up the **MAIN MENU** (see above):

○ Press the red key Ⓐ.
▷ The **PICTURE** menu appears on the screen.


MAIN MENU
A PICTURE
B SOUND
PICTURE
A BRIGHTNESS
B COLOUR
C CONTRAST
D SHARPNESS

Brightness, colour, contrast, sharpness

○ Press the coloured key Ⓐ, Ⓑ, Ⓒ or Ⓓ corresponding to the adjustment which you want to modify.
▷ A horizontal scale appears at the bottom of the screen.

○ Press the [− +] key to make the adjustment.
▷ The cursor moves according to your adjustment.

○ Press the corresponding coloured key to select another adjustment.

Tint

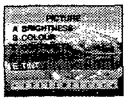
The tint adjustment allows you to influence the colour reproduction by modifying the white reference.

○ Press the white key Ⓔ.
▷ A horizontal scale appears at the bottom of the screen.

○ Press the [− +] key to make the adjustment.
▷ For a 'warm' picture (redder whites):
move the cursor to the maximum (+) position.

▷ For a balanced colour reproduction:
move the cursor to the middle position.

▷ For a 'cool' picture (bluer whites):
move the cursor to the minimum (-) position.


PICTURE
A BRIGHTNESS
B COLOUR
E TINT

To exit from the PICTURE menu

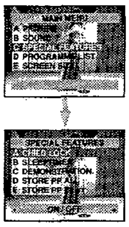
○ Press the ▤ key.
▷ The **MAIN MENU** reappears, move on to "Adjusting the sound".

○ To exit from the **MAIN MENU** press the ▤ key a second time.

Special features

Starting from the **MAIN MENU:**

○ Press the yellow key Ⓒ.
▷ The **SPECIAL FEATURES** menu appears on the screen.


MAIN MENU
A PICTURE
B SOUND
C SPECIAL FEATURES
D PROGRAMME LIST
E SCREEN SIZE
SPECIAL FEATURES
A CHILD LOCK
B SLEEPTIMER
C DEMONSTRATION
D STORE PP ALL
E STORE PP
ON / OFF

Child lock

The child lock function is an electronic lock which disables the keys on the TV set. This function enables you to prevent operation of the TV set (by your children for example). You then simply have to activate the child lock and hide the remote control so that the TV set is unusable.

Starting from the **SPECIAL FEATURES** menu:

○ Press the red key Ⓐ.
▷ The indication **OFF** is displayed at the bottom of the screen.
○ Press the [− +] key.
▷ The indication **ON** appears. The keys on the TV set are no longer active.

To check that the child lock is functioning:

○ Press the ⏻ key on the front of the TV set to switch off the set.
○ Press the ⏻ key again to switch on.
▷ The TV set remains in standby (the red indicator lights up).
○ Press one of the keys on the TV set.
▷ The indication **CHILD LOCK** appears for a few moments and the screen remains black. The only way of switching on the TV set is to use the remote control.

To cancel the child lock:

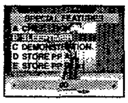
○ Select the function again and reposition the menu display to **OFF**.

Sleeptimer

This function allows you to program the TV set to automatically switch off after a certain period of time.

Starting from the **SPECIAL FEATURES** menu:

○ Press the green key Ⓑ.
▷ The indication 00 is displayed at the bottom of the screen.
○ Press the [− +] key to program the duration.
▷ Each time you press the key, the duration increases by 15 minutes (up to 90 minutes).
○ Press the ▤ key twice to exit from the menu.
▷ The TV set automatically switches to standby after the programmed time period has elapsed.


SPECIAL FEATURES
A CHILD LOCK
B SLEEPTIMER
C DEMONSTRATION
D STORE PP ALL
E STORE PP
00

To display the remaining time:

○ Press the ⊜ key.
▷ The remaining time is displayed for a few moments on the screen.

To cancel the programmed switching off:

○ Select the function again and reset the menu display to 00.

Demonstration

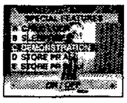
The demonstration mode triggers off an automatic display of all the TV set's menus:

Starting from the **SPECIAL FEATURES** menu:

○ Press the yellow key Ⓒ.
▷ The indication **OFF** appears at the bottom of the screen.
○ Press the [− +] key to switch on the demonstration mode.
▷ The indication **DEMONSTRATION** is displayed, the OPERATION and INSTALLATION menus are displayed automatically one after the other.

To switch off the demonstration mode:

○ Press the ▤ key.


SPECIAL FEATURES
A CHILD LOCK
B SLEEPTIMER
C DEMONSTRATION
D STORE PP ALL
E STORE PP
ON / OFF

Programme list

This function allows you to consult the list of programme names and numbers of the first 40 channels which you have stored in the **INSTALLATION** menu.

○ Press the ▤ key.
▷ The **MAIN MENU** appears on the screen.

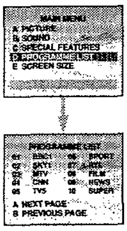
○ Press the blue key Ⓓ.
▷ The **PROGRAMME LIST** menu appears on the screen with the list of the first 10 channels.

To display the next page:

○ Press the red key Ⓐ.

To display the previous page:

○ Press the green key Ⓑ.


MAIN MENU
A PICTURE
B SOUND
C SPECIAL FEATURES
D PROGRAMME LIST
E SCREEN SIZE
PROGRAMME LIST
01 BBC1
02 SKY1
03 MTV
04 CNN
05 TV5
06 SPORT
07 ARTE
08 FILM
09 NEWS
10 SUPER
A NEXT PAGE
B PREVIOUS PAGE

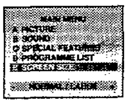
Screen size

This function enables you to adapt 16/9 format pictures to the proportions of your screen (4/3).

○ Press the ▤ key.
▷ The **MAIN MENU** appears on the screen.

○ Press the white key Ⓔ.
▷ The indication **NORMAL** is displayed at the bottom of the screen.

○ Press the [− +] key.
▷ The indication **LARGE** is displayed and a black band appears at the top and bottom of the screen. The picture is reproduced in 16/9 format.


MAIN MENU
A PICTURE
B SOUND
C SPECIAL FEATURES
D PROGRAMME LIST
E SCREEN SIZE
NORMAL / LARGE

Programmable keys

The remote control has two blue programmable keys ⊖ and ⊕. If you regularly use certain adjustments within the menus (for example the spatial effect, headphone volume, brightness...) it is possible to program direct access to one of these adjustments.

○ Press the ▤ key.
▷ The **MAIN MENU** appears on the screen.

Select the adjustment which you wish to program.
For example, to program the spatial effect:

○ Press the green key Ⓑ to call up the **SOUND** menu.

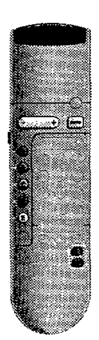
○ Press the blue key Ⓓ to select **SPATIAL** effect.
▷ The indication **OFF** or **ON** appears at the bottom of the screen.

○ Use the blue keys ⊖ and ⊕ instead of the [− +] key to make the adjustment.
▷ The sound is modified. The keys ⊖ and ⊕are automatically programmed.

○ Press the ▤ key twice to exit from the menu.

To check the function:

○ Press the blue keys ⊖ and ⊕.
▷ Each time the keys are pressed, the spatial effect is switched on or off.
From now onwards, these two keys allow you to adjust the spatial effect directly, without using the menus.
Carry out the operation on the adjustment of your choice.



10. Spare parts list / Stükliste / Liste des pièces

Main carrier [A/B/C/D]

Various

▲	4822 265 30389	2P male vert yellow
	4822 264 40207	3P male vert WTB
	4822 267 40666	3P male vert blue
	4822 264 40239	3P male vert green
▲	4822 265 30877	3P male vert
	4822 267 40696	3P male vert white
	4822 267 41113	3P female hor white
	4822 267 31694	3P female hor blue
	4822 267 40794	3P female vert grey WTB
	4822 267 40699	4P male vert red
	4822 265 30378	4P male vert WTB
	4822 290 40283	5P male vert green
	4822 265 40421	6P male vert WTB
	4822 267 30546	6P female vert grey
	4822 267 50621	7P male vert white
▲	4822 267 60243	Euroconnector (scart) blue
▲	4822 256 92053	Fuse holder
	4822 256 91879	Holder
▲	4822 502 13712	Screw 12x3
	4822 492 70871	Spring
	4822 492 70143	Spring 10x33
	4822 466 30395	Shield microprocessor
1000	4822 210 10436	U944C/IEC
1000	4822 210 10611	UV916M
1240▲	4822 252 51174	Fuse 1.6A 65V
1242▲	4822 252 51174	Fuse 1.6A 65V
1300	4822 242 81807	8.867570 MHz
1301	4822 242 70304	8.867238 MHz
1534▲	4822 252 51172	Fuse 3.15A 65V
1559▲	4822 252 51173	Fuse 1A 65V
1563	4822 526 10405	Bead
1564	4822 526 10405	Bead
1580▲	4822 252 51174	Fuse 1.6A 65V
1600▲	4822 070 32502	Fuse 2.5A 65V
1601▲	4822 252 51175	Fuse 2.5A 65V
1640	4822 526 10405	Bead
1641	4822 526 10405	Bead
1642	4822 526 10405	Bead
1643	4822 526 10405	Bead
1702	4822 242 81841	8MHz

⊣⊢

2001	4822 124 40214	1000µF 20% 25V
2002	4822 122 31797	22nF 10% 63V
2003	4822 122 33496	100nF 10% 63V
2005▲	4822 124 40196	220µF 20% 16V
2010	4822 124 40248	10µF 20% 63V
2012	4822 122 31768	180pF 2% 63V
2231▲	4822 124 41525	100µF 20% 25V
2232	4822 122 31797	22nF 10% 63V
2236	4822 122 31644	2.2nF 10% 63V
2236	4822 122 31784	4.7nF 10% 50V
2237	4822 122 31947	100nF 20% 63V
2238	4822 122 32153	1.8nF 10% 63V
2238	4822 122 33498	2.7nF 10% 63V
2239	4822 122 31947	100nF 20% 63V
2240	4822 124 40214	1000µF 20% 25V
2241	5322 121 42386	100nF 5% 63V
2242	4822 124 40214	1000µF 20% 25V
2243	4822 121 41856	22nF 5% 250V
2245	4822 121 41856	22nF 5% 250V
2246	4822 124 41596	22µF 20% 50V
2248	4822 124 40849	330µF 20% 16V
2249	4822 122 31797	22nF 10% 63V
2252	4822 121 41857	10nF 5% 250V
2253	4822 121 41857	10nF 5% 250V
2254	4822 121 51252	470nF 5% 63V
2255	4822 121 51252	470nF 5% 63V
2256	4822 122 32142	270pF 2% 63V
2257	4822 122 32142	270pF 2% 63V
2258	4822 121 51252	470nF 5% 63V
2259	4822 121 51252	470nF 5% 63V
2260	4822 122 31116	2.2nF 10% 500V
2261	4822 122 31116	2.2nF 10% 500V
2300	4822 122 32482	22pF 2% 63V
2301	4822 122 32999	2.2nF 5%
2303	4822 122 31768	180pF 2% 63V
2304	4822 122 31773	560pF 2% 63V
2304	4822 122 32999	2.2nF 5%
2305	4822 126 10324	33pF 2% 63V
2306	4822 122 31965	220pF 2% 63V
2307	4822 122 33496	100nF 10% 63V
2308	4822 122 31797	22nF 10% 63V
2310	4822 121 41857	10nF 5% 250V
2310	4822 121 42408	220nF 5% 63V
2311	4822 122 33496	100nF 10% 63V
2312	4822 121 41857	10nF 5% 250V
2312	4822 121 42408	220nF 5% 63V
2313	4822 125 50045	1p8-22p 250V
2314	5322 121 42661	330nF 5% 63V
2314	5322 122 32818	2.2nF 10% 100V
2315	4822 122 31825	27pF 2% 63V
2316	4822 122 33496	100nF 10% 63V
2319▲	4822 122 32442	10nF 50V
2321	4822 122 31797	22nF 10% 63V
2322	4822 122 31797	22nF 10% 63V
2323	4822 122 32542	47nF 10% 63V
2325	4822 122 31965	220pF 2% 63V
2325	4822 122 32542	47nF 10% 63V
2326	4822 122 31839	82pF 2% 63V
2328▲	4822 122 32442	10nF 50V
2329▲	4822 122 32442	10nF 50V
2330	4822 122 33496	100nF 10% 63V
2331	4822 122 33496	100nF 10% 63V
2332	4822 122 33496	100nF 10% 63V
2333	4822 122 33496	100nF 10% 63V
2334	4822 122 33496	100nF 10% 63V
2336	4822 122 31797	22nF 10% 63V
2337	4822 122 31797	22nF 10% 63V
2338	4822 122 31797	22nF 10% 63V
2339	4822 122 33496	100nF 10% 63V
2340	4822 122 31797	22nF 10% 63V
2341	4822 122 31797	22nF 10% 63V
2342	4822 122 33496	100nF 10% 63V
2343	4822 122 33496	100nF 10% 63V
2344	4822 122 33496	100nF 10% 63V
2345	4822 122 31797	22nF 10% 63V
2348▲	4822 124 40196	220µF 20% 16V
2349	5322 122 31647	1nF 10% 63V
2350▲	4822 124 40433	47µF 20% 25V
2351	4822 122 31797	22nF 10% 63V
2352	5322 122 31647	1nF 10% 63V
2353	4822 122 33496	100nF 10% 63V
2354	4822 124 40242	1µF 20% 63V
2355	4822 124 40849	330µF 20% 16V
2356	4822 122 31797	22nF 10% 63V
2357	4822 122 31797	22nF 10% 63V
2358	4822 122 31797	22nF 10% 63V
2359	4822 122 31765	100pF 2% 63V
2360	4822 122 33496	100nF 10% 63V
2361	4822 122 33496	100nF 10% 63V
2362	4822 122 33496	100nF 10% 63V
2363	4822 122 31765	100pF 2% 63V
2365	5322 121 42661	330nF 5% 63V
2366	4822 124 40248	10µF 20% 63V
2367	4822 124 40753	6.8µF 20% 63V
2368	4822 126 13094	11pF 2% 63V
2369	4822 121 51252	470nF 5% 63V
2370	4822 121 42408	220nF 5% 63V
2374	4822 122 31772	47pF 2% 63V
2378	4822 122 33496	100nF 10% 63V
2385	4822 122 31772	47pF 2% 63V
2386	4822 122 33481	1800pF 2% 63V
2451	4822 122 33496	100nF 10% 63V
2453	5322 124 41431	22µF 20% 35V
2455	5322 122 31647	1nF 10% 63V
2456	4822 124 40242	1µF 20% 63V
2457	4822 122 33496	100nF 10% 63V
2458	4822 121 42937	2.7nF 1% 250V
2459	4822 122 33496	100nF 10% 63V
2460	4822 122 32566	3.9nF 10% 63V
2460	4822 122 33498	2.7nF 10% 63V
2461	5322 122 31647	1nF 10% 63V
2462	4822 122 31797	22nF 10% 63V
2464	4822 122 33496	100nF 10% 63V
2465	4822 124 40198	470µF 20% 16V
2466	4822 124 40248	10µF 20% 63V
2467	4822 122 33496	100nF 10% 63V
2468	4822 124 22652	2.2µF 20% 50V
2469	4822 124 41596	22µF 20% 50V
2470	4822 122 31772	47pF 2% 63V
2471	5322 121 42661	330nF 5% 63V
2473	5322 121 42661	330nF 5% 63V
2475	5322 122 31647	1nF 10% 63V
2476▲	4822 122 32442	10nF 50V
2500	4822 122 31773	560pF 2% 63V
2501	4822 122 33481	1800pF 2% 63V
2502	5322 124 41381	22µF 20% 50V
2503▲	4822 122 32442	10nF 50V
2505	4822 122 32542	47nF 10% 63V
2506	4822 124 80065	1000µF 20% 50V
2507	4822 122 31797	22nF 10% 63V
2509	4822 121 51319	1µF 10% 63V
2524	4822 124 42167	4.7µF 20% 50V
2539	4822 124 40198	470µF 20% 16V
2543	4822 122 31784	4.7nF 10% 50V
2544	4822 122 32183	56nF 10% 50V
2545▲	4822 126 12273	1200pF 10%R(HR) 2KV
2545▲	4822 126 12274	1500pF 10%R(HR) 2KV
2546▲	4822 121 70434	11nF 5% 1.6KV
2546▲	4822 121 70538	13nF 5% 1.6KV
2547▲	4822 121 42934	27nF 10% 400V
2547▲	5322 121 44219	47nF 10% 400V
2548	4822 121 41856	22nF 5% 250V
2549▲	4822 121 42074	470 nF 10% 400V
2550▲	4822 121 51528	470nF 5% 250V
2550▲	5322 121 44128	680nF 10% 250V
2551	4822 124 80069	1µF 20% 160V
2552	4822 122 33496	100nF 10% 63V
2559	4822 124 80059	100µF 20% 25V
2560▲	4822 121 51408	33nF 10% 250V
2561	4822 122 31766	120pF 2% 63V
2570	4822 124 80071	22µF 20% 160V
2574	4822 122 30057	2.7nF 10% 100V
2580	4822 124 80061	1000µF 20% 25V
2588	4822 051 10008	0R00 5% 0.25W
2590	5322 121 42498	680nF 5% 63V
2600▲	4822 121 70285	470nF 10% 250V
2605	4822 124 23492	220µF 50% 385V
2605▲	4822 124 80728	150µF 20% 385V
2607▲	4822 121 51469	1nF 400V
2608	4822 122 31965	220pF 2% 63V
2612	5322 122 31647	1nF 10% 63V
2617	4822 121 51252	470nF 5% 63V
2617	4822 121 51319	1µF 10% 63V
2620	5322 121 42465	68nF 5% 63V
2625▲	4822 126 12272	1nF 10%R(HR) 2KV
2626▲	4822 126 12267	470pF 10%R(HR) 2KV
2630	4822 124 23418	47µF 200V
2630	4822 124 42448	100µF 20% 200V
2631	4822 124 23418	47µF 200V
2631	4822 124 42448	100µF 20% 200V
2632▲	4822 126 11382	1nF 10% 1KV
2640	4822 124 80061	1000µF 20% 25V
2641	4822 124 80061	1000µF 20% 25V
2652	5322 122 32331	1nF 10% 100V
2653	5322 122 32331	1nF 10% 100V
2658	5322 122 32838	82nF 10% 63V
2660	4822 124 80061	1000µF 20% 25V
2672	5322 124 41379	2.2µF 20% 50V
2675	4822 124 80064	680µF 20% 50V
2675	4822 124 80065	1000µF 20% 50V
2676	5322 122 32331	1nF 10% 100V
2700	4822 124 40248	10µF 20% 63V
2704	4822 122 32542	47nF 10% 63V
2705	4822 122 31766	120pF 2% 63V
2706	4822 124 41643	100µF 20% 16V
2707▲	4822 122 32442	10nF 50V
2708	4822 122 31766	120pF 2% 63V
2709	4822 122 32139	12pF 2% 63V
2710	4822 122 32139	12pF 2% 63V
2711	4822 122 31825	27pF 2% 63V
2712	4822 122 31825	27pF 2% 63V
2713▲	4822 124 41525	100µF 20% 25V
2716	4822 122 33496	100nF 10% 63V
2718	4822 122 33496	100nF 10% 63V
2719	5322 121 42386	100nF 5% 63V
2721	4822 122 31784	4.7nF 10% 50V
2722	4822 122 33496	100nF 10% 63V
2853	4822 121 43856	4.7nF 5% 250V
2854	4822 122 33496	100nF 10% 63V
2860	4822 124 40248	10µF 20% 63V

-▭-

3001▲	4822 052 10399	39Ω 5% 0.33W
3002	4822 116 52257	22k 5% 0.5W
3003	4822 116 52296	6k8 5% 0.5W
3009	4822 116 52175	100Ω 5% 0.5W
3010	4822 116 52175	100Ω 5% 0.5W
3200	4822 051 10223	22k 2% 0.25W
3201	4822 051 10562	5k6 2% 0.25W
3202	4822 051 10122	1k2 2% 0.25W
3203▲	4822 116 52233	10k 5% 0.5W
3204	4822 051 10101	100Ω 2% 0.25W
3205	4822 051 10223	22k 2% 0.25W
3206	4822 051 10562	5k6 2% 0.25W
3207	4822 116 52207	1k2 5% 0.5W
3208	4822 116 52228	680Ω 5% 0.5W
3208▲	4822 116 52263	2k7 5% 0.5W
3209	4822 116 52228	680Ω 5% 0.5W
3209▲	4822 116 52263	2k7 5% 0.5W
3220	4822 051 10392	3k9 2% 0.25W
3222	4822 116 52234	100Ω 5% 0.5W
3223	4822 051 10109	10Ω 2% 0.25W
3224	4822 051 20222	2k2 5% 0.1W
3225	4822 051 10272	2k7 2% 0.25W
3226	4822 051 10333	33k 2% 0.25W
3227	4822 051 10333	33k 2% 0.25W
3228	4822 116 52211	150Ω 5% 0.5W
3229	4822 051 10562	5k6 2% 0.25W
3230	4822 051 10223	22k 2% 0.25W
3231▲	4822 051 10472	4k7 2% 0.25W
3240▲	4822 052 10828	8Ω2 5% 0.33W
3241▲	4822 052 10828	8Ω2 5% 0.33W
3242	4822 051 10563	56k 2% 0.25W
3243	4822 051 10563	56k 2% 0.25W
3244▲	4822 051 10103	10k 2% 0.25W
3245▲	4822 051 10103	10k 2% 0.25W
3250	4822 116 80175	4k7 5% 0.5W
3251	4822 116 80175	4k7 5% 0.5W
3253	4822 116 52211	150Ω 5% 0.5W
3254	4822 116 52211	150Ω 5% 0.5W
3300	4822 051 10822	8k2 2% 0.25W
3301	4822 051 10272	2k7 2% 0.25W
3302	4822 051 20222	2k2 5% 0.1W
3303	4822 051 10122	1k2 2% 0.25W
3303	4822 051 10392	3k9 2% 0.25W
3304	4822 051 10182	1k8 2% 0.25W
3305	4822 051 10431	430Ω 2% 0.25W
3306▲	4822 116 52233	10k 5% 0.5W
3307	4822 051 10561	560Ω 2% 0.25W
3307	4822 051 10681	680Ω 2% 0.25W
3308	4822 051 20183	18k 5% 0.1W
3309	4822 051 10562	5k6 2% 0.25W
3310▲	4822 051 10472	4k7 2% 0.25W
3311▲	4822 051 10103	10k 2% 0.25W
3312	4822 051 10331	330Ω 2% 0.25W
3313	4822 051 10274	270k 2% 0.25W
3314▲	4822 116 52233	10k 5% 0.5W
3318	4822 116 52224	470Ω 5% 0.5W
3319▲	4822 051 10103	10k 2% 0.25W
3321	4822 051 10473	47k 2% 0.25W
3323	4822 116 52305	820k 5% 0.5W
3324	4822 051 10331	330Ω 2% 0.25W
3325	4822 116 52175	100Ω 5% 0.5W
3326	4822 051 10101	100Ω 2% 0.25W
3327	4822 051 10331	330Ω 2% 0.25W
3328	4822 051 10102	1k 2% 0.25W
3329▲	4822 116 52256	2k2 5% 0.5W
3330	4822 051 10109	10Ω 2% 0.25W
3331	4822 051 10109	10Ω 2% 0.25W
3332	4822 050 15609	56Ω 1% 0.4W
3333	4822 051 20222	2k2 5% 0.1W
3334▲	4822 053 11279	27Ω 5% 2W
3334	4822 053 11399	39Ω 5% 2W
3335	4822 116 52226	560Ω 5% 0.5W
3336▲	4822 052 10479	47Ω 5% 0.33W
3342▲	4822 051 10103	10k 2% 0.25W
3343	4822 051 10473	47k 2% 0.25W
3346	4822 051 10332	3k3 2% 0.25W
3347▲	4822 116 52219	330Ω 5% 0.5W
3348▲	4822 116 52219	330Ω 5% 0.5W
3349▲	4822 116 52219	330Ω 5% 0.5W
3350	4822 050 11002	1k 1% 0.4W
3356▲	4822 050 21008	1Ω 1% 0.6W
3358	4822 051 10331	330Ω 2% 0.25W
3359▲	4822 116 52219	330Ω 5% 0.5W
3361	4822 051 10101	100Ω 2% 0.25W
3362	4822 051 10102	1k 2% 0.25W
3363	4822 116 52175	100Ω 5% 0.5W
3364	4822 050 21502	1k5 1% 0.6W
3366	4822 116 52297	68k 5% 0.5W
3367	4822 116 52175	100Ω 5% 0.5W
3368	4822 116 52175	100Ω 5% 0.5W
3369	4822 116 52175	100Ω 5% 0.5W
3370▲	4822 051 10472	4k7 2% 0.25W
3371	4822 051 10332	3k3 2% 0.25W
3375	4822 051 10109	10Ω 2% 0.25W
3376	4822 051 10109	10Ω 2% 0.25W
3380	4822 051 10101	100Ω 2% 0.25W
3381	4822 051 10101	100Ω 2% 0.25W
3385	4822 051 10102	1k 2% 0.25W
3450	4822 116 52238	12k 5% 0.5W
3451	4822 116 52175	100Ω 5% 0.5W
3453	4822 116 52251	18k 5% 0.5W
3454	4822 050 11002	1k 1% 0.4W
3455	4822 051 10122	1k2 2% 0.25W
3456▲	4822 051 10103	10k 2% 0.25W
3457	4822 116 83726	27k 5% 0.125W
3458	4822 117 11455	7k87 1%
3459	4822 116 52304	82k 5% 0.5W
3460	4822 116 52271	33k 5% 0.5W
3461	4822 100 10436	22k CARB LIN 0.1W
3462	4822 116 52257	22k 5% 0.5W
3463	4822 116 52251	18k 5% 0.5W
3464	4822 051 10123	12k 2% 0.25W

BTB = Board To Board; WTB = Wire To Board

3465	4822 051 10394	390k 2% 0.25W
3466	4822 051 10681	680Ω 2% 0.25W
3467	4822 053 20275	2M7 5% 0.25W
3467	4822 053 20335	3M3 5% 0.25W
3468	4822 051 10682	6k8 2% 0.25W
3469	4822 051 10229	22Ω 2% 0.25W
3470▲	4822 116 52233	10k 5% 0.5W
3471	4822 116 52239	120k 5% 0.5W
3471	4822 116 52285	470k 5% 0.5W
3473	4822 116 52265	270k 5% 0.5W
3474	4822 051 10562	5k6 2% 0.25W
3475	4822 051 10184	180k 2% 0.25W
3476	4822 051 10104	100k 2% 0.25W
3477	4822 051 10008	0Ω 5% 0.25W
3477	4822 051 10228	2Ω2 5% 0.25W
3478	4822 051 10008	0Ω 5% 0.25W
3478	4822 051 10478	4Ω7 5% 0.25W
3479▲	4822 116 52219	330Ω 5% 0.5W
3480	4822 050 11002	1k 1% 0.4W
3481▲	4822 116 52283	4k7 5% 0.5W
3482▲	4822 116 52283	4k7 5% 0.5W
3483▲	4822 052 10339	33Ω 5% 0.33W
3484	4822 051 20183	18k 5% 0.1W
3485	4822 051 10682	6k8 2% 0.25W
3486	4822 051 10182	1k8 2% 0.25W
3487	4822 116 52231	820Ω 5% 0.5W
3488	4822 051 10471	470Ω 2% 0.25W
3489	4822 051 10008	0Ω 5% 0.25W
3490	4822 116 52296	6k8 5% 0.5W
3501	4822 051 10229	22Ω 2% 0.25W
3501	4822 051 10279	27Ω 2% 0.25W
3502▲	4822 053 10122	1k2 5% 1W
3502▲	4822 053 10272	2k7 5% 1W
3503▲	4822 052 10128	1Ω2 5% 0.33W
3503▲	4822 052 10478	4Ω7 5% 0.33W
3504	4822 100 11684	100Ω 10% 0.1W
3505	4822 051 10471	470Ω 2% 0.25W
3506	4822 051 10334	330k 2% 0.25W
3507	4822 051 10223	22k 2% 0.25W
3507	4822 051 10273	27k 2% 0.25W
3508	4822 051 10228	2Ω2 5% 0.25W
3509	4822 051 10228	2Ω2 5% 0.25W
3510	4822 051 10228	2Ω2 5% 0.25W
3511	4822 051 10228	2Ω2 5% 0.25W
3512	4822 051 10228	2Ω2 5% 0.25W
3513▲	4822 053 10331	330Ω 5% 1W
3514	4822 051 10182	1k8 2% 0.25W
3515	4822 051 10228	2Ω2 5% 0.25W
3516	4822 100 10436	22k CARB LIN 0.1W
3517	4822 051 10228	2Ω2 5% 0.25W
3519	4822 051 10228	2Ω2 5% 0.25W
3520▲	4822 116 52283	4k7 5% 0.5W
3523	4822 051 10228	2Ω2 5% 0.25W
3529	4822 051 10228	2Ω2 5% 0.25W
3535	4822 051 10151	150Ω 2% 0.25W
3535	4822 051 51201	120Ω 1% 0.125W
3537	4822 116 52234	100Ω 5% 0.5W
3539	4822 053 20474	470k 5% 0.25W
3540	4822 051 51201	120Ω 1% 0.125W
3541	4822 116 52257	22k 5% 0.5W
3542	4822 051 10102	1k 2% 0.25W
3542	4822 051 10272	2k7 2% 0.25W
3543	4822 116 52175	100Ω 5% 0.5W
3545	4822 113 80576	180Ω 10% 5W
3545	4822 113 80668	330Ω 5% 5W
3546	4822 116 52206	120Ω 5% 0.5W
3546	4822 116 52213	180Ω 5% 0.5W
3548	4822 116 52175	100Ω 5% 0.5W
3549	4822 050 21203	12k 1% 0.6W
3550	4822 050 21203	12k 1% 0.6W
3551▲	4822 050 25601	560Ω 1% 0.6W
3552▲	4822 050 25601	560Ω 1% 0.6W
3553▲	4822 052 10561	560Ω 5% 0.33W
3560	4822 116 52244	15k 5% 0.5W
3560	4822 116 52271	33k 5% 0.5W
3561	4822 051 10332	3k3 2% 0.25W
3561	4822 051 20222	2k2 5% 0.1W
3570▲	4822 052 10688	6Ω8 5% 0.33W
3588▲	4822 052 10271	270Ω 5% 0.33W
3589▲	4822 052 10271	270Ω 5% 0.33W
3590▲	4822 116 52272	330k 5% 0.5W
3591	4822 051 10682	6k8 2% 0.25W
3592	4822 051 10681	680Ω 2% 0.25W
3604▲	4822 113 80593	1.5Ω 10% 5W
3606▲	4822 052 10102	1k 5% 0.33W
3610▲	4822 052 10688	6Ω8 5% 0.33W
3610▲	4822 052 10828	8Ω2 5% 0.33W
3616▲	4822 050 24708	4Ω7 1% 0.6W
3617	4822 116 52213	180Ω 5% 0.5W
3619	4822 116 52182	15Ω 5% 0.5W
3620	4822 053 12121	120Ω 5% 3W
3621▲	4822 053 12279	27Ω 5% 3W
3621	4822 053 12479	47Ω 5% 3W
3622	4822 053 12479	47Ω 5% 3W
3626	4822 113 80565	180Ω 5% 5W
3631	4822 050 21204	120k 1% 0.6W
3631	4822 050 22204	220k 1% 0.6W
3634	4822 051 10272	2k7 2% 0.25W
3634	4822 051 10332	3k3 2% 0.25W
3635	4822 101 11187	1k 30% LIN 0.1W
3637	4822 116 52175	100Ω 5% 0.5W
3659	4822 051 10181	180Ω 2% 0.25W
3675	4822 116 52239	120k 5% 0.5W
3675	4822 116 52284	47k 5% 0.5W
3677	4822 051 10108	1Ω 5% 0.25W
3678▲	4822 116 52283	4k7 5% 0.5W
3682▲	4822 053 10561	560Ω 5% 1W
3700	4822 116 52257	22k 5% 0.5W
3706▲	4822 051 10103	10k 2% 0.25W
3707	4822 051 10101	100Ω 2% 0.25W
3708▲	4822 051 10103	10k 2% 0.25W
3708	4822 051 10223	22k 2% 0.25W
3709▲	4822 116 52283	4k7 5% 0.5W
3710	4822 051 10104	100k 2% 0.25W
3718▲	4822 116 52215	220Ω 5% 0.5W
3719▲	4822 116 52215	220Ω 5% 0.5W
3721▲	4822 051 10103	10k 2% 0.25W
3722▲	4822 051 10103	10k 2% 0.25W
3724▲	4822 051 10103	10k 2% 0.25W
3725▲	4822 051 10103	10k 2% 0.25W
3727▲	4822 116 52217	270Ω 5% 0.5W
3728	4822 116 52175	100Ω 5% 0.5W
3729	4822 051 10911	910Ω 2% 0.25W
3730	4822 051 10221	220Ω 2% 0.25W
3732	4822 053 11103	10k 5% 2W
3732	4822 053 11332	3k3 5% 2W
3733	4822 050 23902	3k9 1% 0.6W
3734	4822 050 23902	3k9 1% 0.6W
3734▲	4822 116 52283	4k7 5% 0.5W
3736	4822 116 52175	100Ω 5% 0.5W
3737	4822 050 11002	1k 1% 0.4W
3741	4822 051 10123	12k 2% 0.25W
3742	4822 051 20222	2k2 5% 0.1W
3743▲	4822 051 10472	4k7 2% 0.25W
3746	4822 051 10123	12k 2% 0.25W
3747	4822 051 10822	8k2 2% 0.25W
3748	4822 051 10273	27k 2% 0.25W
3750▲	4822 051 10472	4k7 2% 0.25W
3751	4822 051 10153	15k 2% 0.25W
3752	4822 116 52244	15k 5% 0.5W
3753▲	4822 116 52283	4k7 5% 0.5W
3754	4822 051 10563	56k 2% 0.25W
3755	4822 051 10101	100Ω 2% 0.25W
3756	4822 051 10101	100Ω 2% 0.25W
3757	4822 051 10182	1k8 2% 0.25W
3758	4822 051 10182	1k8 2% 0.25W
3759▲	4822 051 10103	10k 2% 0.25W
3766	4822 116 52243	1k5 5% 0.5W
3767	4822 116 52243	1k5 5% 0.5W
3768	4822 051 10105	1M 5% 0.25W
3769	4822 116 52243	1k5 5% 0.5W
3770	4822 051 10473	47k 2% 0.25W
3771	4822 116 52251	18k 5% 0.5W
3772	4822 116 52276	3k9 5% 0.5W
3775	4822 051 10101	100Ω 2% 0.25W
3776	4822 051 10562	5k6 2% 0.25W
3779▲	4822 116 52233	10k 5% 0.5W
3780▲	4822 051 10103	10k 2% 0.25W
3781▲	4822 051 10472	4k7 2% 0.25W
3791	4822 051 10122	1k2 2% 0.25W
3792	4822 051 10122	1k2 2% 0.25W
3793	4822 051 10122	1k2 2% 0.25W
3794▲	4822 116 52215	220Ω 5% 0.5W
3850	4822 116 52201	75Ω 5% 0.5W
3851▲	4822 116 83953	75Ω 5% 0.125W
3852▲	4822 116 83953	75Ω 5% 0.125W
3853▲	4822 116 83953	75Ω 5% 0.125W
3854▲	4822 116 83953	75Ω 5% 0.125W
3855	4822 116 52201	75Ω 5% 0.5W
3856	4822 116 52175	100Ω 5% 0.5W
3860	4822 116 80176	1Ω 5% 0.5W
3861	4822 051 10159	15Ω 2% 0.25W
3862	4822 116 52218	300Ω 5% 0.5W
3863	4822 051 10223	22k 2% 0.25W
3864	4822 051 20222	2k2 5% 0.1W
3865	4822 116 52284	47k 5% 0.5W
3866	4822 051 10333	33k 2% 0.25W
3867▲	4822 116 52283	4k7 5% 0.5W
3868	4822 051 10394	390k 2% 0.25W
3872	4822 051 10102	1k 2% 0.25W
3886▲	4822 051 10472	4k7 2% 0.25W
3887	4822 050 11002	1k 1% 0.4W
3888	4822 116 52289	5k6 5% 0.5W
3890▲	4822 051 10103	10k 2% 0.25W
4xxx	4822 051 10008	0Ω 5% 0.25W

—∿∿—

5001	4822 156 20966	47μH 10%
5240	4822 157 53066	15μH 10%
5242	4822 157 53066	15μH 10%
5301	4822 157 63075	7.95 μH 8%
5303	4822 157 70827	33μH -5%
5534▲	4822 157 62771	Coil 90°
5534▲	4822 158 10728	Coil 110°
5541▲	4822 157 63078	Driver transformer
5545▲	4822 140 10499	LOT-21"-90°
5545▲	4822 140 10501	LOT 25"/28" BLS
5549▲	4822 157 53069	Balance coil
5554▲	4822 156 50097	Linearity coil LC90
5554▲	4822 157 63079	Linearity coil AT4042
5563▲	4822 157 51462	10μH
5582	4822 157 70826	2.4μH
5588▲	4822 157 53252	Coil
5606▲	4822 157 53995	100μH 10%
5619	4822 156 21125	3.9μH 10%
5619	4822 157 53139	4.7μH
5625▲	4822 146 31062	SOPS transformer
5630	4822 157 70826	2.4μH
5631	4822 158 10551	27μH
5632	4822 157 53066	15μH 10%
5675	4822 157 70826	2.4μH
5701	4822 157 53253	27μH 5%
5703	4822 156 20915	33μH

→|—

6204▲	4822 130 30621	1N4148
6245	4822 130 80446	LL4148
6246	4822 130 81139	LLZ-C3V3
6247	4822 130 81139	LLZ-C3V3
6248_	4822 130 80446	LL4148
6300	4822 130 80446	LL4148
6302	4822 130 82192	LLZ-C8V2
6303	4822 130 34382	BZX79-C8V2
6310	4822 130 80884	LLZ-C5V1
6314	4822 130 80446	LL4148
6315▲	4822 130 30621	1N4148
6317	4822 130 80446	LL4148
6319	4822 130 34379	BZX79-C27
6320	4822 130 80877	BAV103
6322▲	4822 130 30621	1N4148
6332	4822 130 82583	LLZ-C9V1
6367	4822 130 80954	LLZ-C5V6
6464	4822 130 81015	LLZ-C10
6483▲	4822 130 30621	1N4148
6503	4822 130 42488	BYD33D
6504	4822 130 80446	LL4148
6505	4822 130 80446	LL4148
6542	4822 130 81222	LLZ-C15
6542	4822 130 82345	LLZ-C22
6546▲	4822 130 83342	BY228
6547▲	4822 130 41602	BYW95C/20
6549▲	4822 130 31983	BAT85
6551	4822 130 42489	BYD33G
6560	4822 130 80446	LL4148
6561	4822 130 30864	BZX79-C68
6563▲	4822 130 80915	BYD74C
6570	4822 130 42489	BYD33G
6571	4822 130 42488	BYD33D
6580	4822 130 80791	BYV28-200/20
6585	4822 130 42489	BYD33G
6590	4822 130 80881	LLZ-C33
6591▲	4822 130 30621	1N4148
6592	4822 130 81144	LLZ-C30
6592	4822 130 82346	LLZ-C27
6610	4822 130 80446	LL4148
6611▲	5322 130 80442	BZV85-C16
6612	4822 130 42488	BYD33D
6615	4822 130 80446	LL4148
6617	4822 130 31456	BZV85-C5V1
6621	4822 130 42488	BYD33D
6622▲	4822 130 30621	1N4148
6624▲	4822 130 31933	1N5061
6625▲	4822 130 31933	1N5061
6630▲	4822 130 33531	BY229F-600
6630▲	4822 130 81175	BYD74G
6640	4822 130 80914	BYD74B
6641	4822 130 80914	BYD74B
6661	4822 130 42488	BYD33D
6666	4822 130 34329	BZX79-C43
6666	4822 130 34368	BZX79-C36
6675	4822 130 80914	BYD74B
6704	4822 130 80446	LL4148
6705	4822 130 80905	LLZ-F5V1
6708	4822 130 81145	LLZ-F2V4
6709	4822 130 34142	BZX79-B33
6860	4822 130 82334	BAS85
6861▲	4822 130 30621	1N4148
6862	4822 130 80446	LL4148

⊗ ▭

7003	4822 130 42133	BC817
7200	5322 130 42136	BC848C
7201	5322 130 42136	BC848C
7202	5322 130 42136	BC848C
7240	4822 209 73853	TDA1521/N4
7243	4822 130 42513	BC858C
7244	4822 130 42513	BC858C
7248	5322 130 42136	BC848C
7249	5322 130 42136	BC848C
7301	5322 130 42136	BC848C
7302	4822 130 42513	BC858C
7303	4822 130 40855	BC337
7304	5322 130 42718	BFS20
7305	4822 209 30389	TDA4510/V8
7306	4822 209 33671	TDA4657/V2
7307	4822 209 12635	TDA4665/V3
7308	4822 209 32593	TDA4671/V1
7309	4822 209 33725	TDA4780/V2
7310	5322 130 42136	BC848C
7311	5322 130 42136	BC848C
7312	5322 130 42136	BC848C
7370	5322 130 42136	BC848C
7454	5322 130 41983	BC858B
7455	4822 130 60136	BC856
7456	5322 130 60159	BC846B
7470	4822 209 63423	TDA2579B/N2
7471	5322 130 42136	BC848C
7500▲	4822 130 41344	BC337-40
7502	4822 130 60775	2SD1266P
7503	4822 130 63508	BD536FI
7504▲	4822 130 41344	BC337-40
7505	4822 130 41327	BC327-40
7540▲	4822 130 41344	BC337-40
7545▲	4822 130 61265	BU508AF
7546▲	5322 130 41982	BC848B
7591	5322 130 41983	BC858B
7625▲	4822 130 62735	BUT12AF
7700▲	5322 130 41982	BC848B
7703▲	5322 130 41982	BC848B
7704▲	5322 130 41982	BC848B
7706▲	5322 130 41982	BC848B
7707▲	5322 130 41982	BC848B
7708	4822 209 52642	VERSION-1.2 EUROPA
7708	4822 209 52643	VERSION-1.2-EAST
7710	4822 209 32283	ST24C08B
7850	5322 130 42136	BC848C
7860	5322 130 42136	BC848C
7861	5322 130 42136	BC848C
7886	5322 130 42136	BC848C

1060 Seperate control module [A/B]

Various

	4822 267 40696	3P male vert white
	4822 265 31135	5P male vert black
	4822 267 50621	7P male vert white
	4822 256 92101	Bracket sep control module
	4822 267 31014	Jackplug stereo
	4822 276 30422	Switch 3-fold
1060	4822 212 31627	Seperate control module

—||—

2200	4822 122 31211	100pF 10% 500V
2203	4822 122 31211	100pF 10% 500V
2233	4822 121 41856	22nF 5% 250V
2234	4822 121 41856	22nF 5% 250V
2240	5322 122 32175	270pF 10% 100V

—▭—

3200▲	4822 050 21002	1k 1% 0.6W
3202▲	4822 050 21002	1k 1% 0.6W
3246	4822 116 52176	10Ω 5% 0.5W
3247	4822 116 52224	470Ω 5% 0.5W
3248	4822 116 52176	10Ω 5% 0.5W
3249	4822 116 52224	470Ω 5% 0.5W
3775	4822 116 52175	100Ω 5% 0.5W
3776	4822 116 52289	5k6 5% 0.5W
3779▲	4822 116 52233	10k 5% 0.5W
3851	4822 116 80176	1Ω 5% 0.5W

Spare parts list / Stükliste / Liste des pièces

-▶|-

6200	4822 130 31981	BZX79-F3V9
6201	4822 130 31981	BZX79-F3V9
6202	4822 130 31981	BZX79-F3V9
6203	4822 130 31981	BZX79-F3V9

1002 Mains filter module [D]

Various

	4822 265 30389	2P male vert yellow
	4822 265 30877	3P male vertB
	4822 267 40794	3P female vert grey WTB
	4822 290 40288	Snap connector
	4822 404 31317	Mains filter module bracket
1002	4822 212 30975	Mains filter module

-||-

2602	4822 126 11141	2.2nF 10% 1K
2604	4822 126 11141	2.2nF 10% 1K

-▭-

3601	4822 116 40211	P.T.C.
3603	4822 117 10492	10M 5%
3605	4822 052 10102	1k 5% 0.33
3607	4822 050 23901	390Ω 1% 0.6
3608	4822 116 21213	VDR 1mA/275V

-∿-

5600	4822 157 63073	Mains filter
5605	4822 157 53995	100μH 10%

-▶|-

6602	4822 130 31933	1N5061
6603	4822 130 31933	1N5061
6604	4822 130 31933	1N5061
6605	4822 130 31933	1N5061
6609	4822 130 34281	BZX79-F15
6610	4822 130 34281	BZX79-F15

1005 Picture tube (CRT) module [E]

Various

	4822 265 31133	3P male white
	4822 265 30378	4P male grey
	4822 265 50824	4P female grey
	4822 290 40283	5P male grey
	4822 290 40287	5P female green
	4822 290 40295	7P male grey
	4822 267 51275	7P female white
	4822 265 40252	7P female grey
	4822 267 51033	Single connector
	4822 492 70871	Spring
	4822 256 91879	Holder
▲	4822 255 70261	*CRT-socket*
1005	4822 212 31629	CRT module 90° narrow neck
1005	4822 212 31628	CRT module 110° BL-S

-||-

2301	4822 122 31769	18pF 2% 63V
2301	4822 126 10324	33pF 2% 63V
2331	4822 122 31769	18pF 2% 63V
2331	4822 126 10324	33pF 2% 63V
2344▲	4822 124 40246	4.7μF 20% 63V
2361	4822 122 31825	27pF 2% 63V
2361	4822 122 32504	15pF 2% 63V
2391	4822 121 43878	27pF 2% 500V
2392	4822 124 80213	4.7μF 20% 100V
2393	4822 122 32542	47nF 10% 63V
2411▲	4822 124 80067	4.7μF 20% 63V
2421	4822 122 32482	22pF 2% 63V
2431	4822 121 41689	100nF 10% 250V
2432	5322 124 41378	33μF 20% 35V
2433▲	4822 126 12274	1500pF 10%R(HR) 2KV
2434	5322 122 32334	220pF 10% 100V
2520	5322 124 41299	68μF 20% 25V
2521	4822 122 32891	68nF 10% 63V
2522	5322 121 42661	330nF 5% 63V
2523	4822 122 31981	33nF +-0.5pF 50V
2526	4822 121 51093	6.8nF 5% 250V
2531	4822 121 42408	220nF 5% 63V
2531	4822 121 43396	120nF 5% 63V
2532	4822 124 80066	1μF 20% 63V
2532▲	4822 124 80067	4.7μF 20% 63V
2533	4822 124 40242	1μF 20% 63V
2534	5322 122 31647	1nF 10% 63V

-▭-

3301	4822 051 10131	130Ω 2% 0.25W
3302	4822 051 10182	1k8 2% 0.25W
3302	4822 051 10362	3k6 2% 0.25W
3303▲	4822 051 10242	2k4 2% 0.25W
3303	4822 051 10272	2k7 2% 0.25W
3304	4822 116 52239	120k 5% 0.5W
3305	4822 051 10154	150k 2% 0.25W
3305	4822 051 10823	82k 2% 0.25W
3306▲	4822 116 52219	330Ω 5% 0.5W
3309	4822 051 10108	1Ω 5% 0.25W
3309	4822 051 10479	47Ω 2% 0.25W
3310▲	4822 116 52219	330Ω 5% 0.5W
3311▲	4822 053 12153	15k 5% 3W
3312▲	4822 052 10271	270Ω 5% 0.33W
3313▲	4822 052 10271	270Ω 5% 0.33W
3314	4822 050 21502	1k5 1% 0.6W
3315	4822 051 10184	180k 2% 0.25W
3315	4822 051 10823	82k 2% 0.25W
3316	4822 051 10224	220k 2% 0.25W
3316	4822 051 10823	82k 2% 0.25W
3331	4822 051 10131	130Ω 2% 0.25W
3332	4822 051 10182	1k8 2% 0.25W
3332	4822 051 10362	3k6 2% 0.25W
3333	4822 116 52259	2k4 5% 0.5W
3333▲	4822 116 52263	2k7 5% 0.5W
3334	4822 116 52239	120k 5% 0.5W
3338	4822 051 10108	1Ω 5% 0.25W
3338	4822 051 10479	47Ω 2% 0.25W
3340▲	4822 116 52219	330Ω 5% 0.5W
3341▲	4822 053 12153	15k 5% 3W
3342▲	4822 052 10271	270Ω 5% 0.33W
3343▲	4822 052 10271	270Ω 5% 0.33W
3344	4822 050 21502	1k5 1% 0.6W
3345	4822 051 10681	680Ω 2% 0.25W
3361	4822 116 52208	130Ω 5% 0.5W
3362	4822 051 10182	1k8 2% 0.25W
3362	4822 051 10362	3k6 2% 0.25W
3364▲	4822 051 10472	4k7 2% 0.25W
3368	4822 051 10108	1Ω 5% 0.25W
3368	4822 051 10479	47Ω 2% 0.25W
3370▲	4822 116 52219	330Ω 5% 0.5W
3371▲	4822 053 12153	15k 5% 3W
3372▲	4822 052 10271	270Ω 5% 0.33W
3373▲	4822 052 10271	270Ω 5% 0.33W
3374	4822 050 21502	1k5 1% 0.6W
3375	4822 051 10184	180k 2% 0.25W
3375	4822 051 10823	82k 2% 0.25W
3376	4822 051 10224	220k 2% 0.25W
3376	4822 051 10823	82k 2% 0.25W
3382	4822 051 10102	1k 2% 0.25W
3383	4822 116 52284	47k 5% 0.5W
3384	4822 116 52277	39k 5% 0.5W
3385	4822 051 10473	47k 2% 0.25W
3391	4822 116 52284	47k 5% 0.5W
3392	4822 051 10123	12k 2% 0.25W
3395	4822 051 10122	1k2 2% 0.25W
3396	4822 051 10104	100k 2% 0.25W
3398	4822 051 10008	0Ω 5% 0.25W
3411	4822 116 52222	390Ω 5% 0.5W
3413	4822 116 52222	390Ω 5% 0.5W
3414	4822 051 10439	43Ω 2% 0.25W
3415	4822 116 52222	390Ω 5% 0.5W
3421	4822 051 10154	150k 2% 0.25W
3424	4822 051 20222	2k2 5% 0.1W
3431▲	4822 052 10181	180Ω 5% 0.33W
3431▲	4822 052 10271	270Ω 5% 0.33W
3432▲	4822 052 10229	22Ω 5% 0.33W
3433▲	4822 052 10128	1Ω2 5% 0.33W
3433▲	4822 052 10188	1Ω8 5% 0.33W
3434	4822 050 21502	1k5 1% 0.6W
3435	4822 050 21502	1k5 1% 0.6W
3436	4822 053 20825	8M2 5% 0.25W
3442	4822 116 52239	120k 5% 0.5W
3443▲	4822 051 10242	2k4 2% 0.25W
3443	4822 051 10272	2k7 2% 0.25W
3446	4822 051 10683	68k 2% 0.25W
3447	4822 051 10102	1k 2% 0.25W
3448	4822 051 10008	0Ω 5% 0.25W
3455	4822 051 10102	1k 2% 0.25W
3456	4822 050 11002	1k 1% 0.4W
3457	4822 051 10244	240k 2% 0.25W
3512	4822 051 10228	2Ω2 5% 0.25W
3518	4822 051 10151	150Ω 2% 0.25W
3520	4822 116 52211	150Ω 5% 0.5W
3521	4822 101 20902	4k7 10% LIN 0.05W
3522	4822 051 10152	1k5 2% 0.25W
3524	4822 051 10683	68k 2% 0.25W
3525	4822 100 20169	10k 10% LIN 0.05W
3525	4822 100 20644	22k 10% LIN 0.05W
3526	4822 050 26803	68k 1% 0.6W
3526	4822 050 26804	680k 1% 0.6W
3527	4822 051 10274	270k 2% 0.25W
3528	4822 051 20222	2k2 5% 0.1W
3529	4822 051 10008	0Ω 5% 0.25W
3529	4822 051 10471	470Ω 2% 0.25W
3530	4822 051 10008	0Ω 5% 0.25W
3530	4822 051 10102	1k 2% 0.25W
3531	4822 051 10008	0Ω 5% 0.25W
3531	4822 051 10104	100k 2% 0.25W
3532▲	4822 051 10103	10k 2% 0.25W
3533	4822 116 52207	1k2 5% 0.5W
3533	4822 116 52303	8k2 5% 0.5W
3534▲	4822 052 10828	8Ω2 5% 0.33W
3535	4822 051 10008	0Ω 5% 0.25W
3535	4822 051 10474	470k 2% 0.25W
3571	4822 051 10273	27k 2% 0.25W
3572	4822 051 10153	15k 2% 0.25W
3575	4822 051 10182	1k8 2% 0.25W
3578	4822 116 52245	150k 5% 0.5W
3580▲	4822 051 10103	10k 2% 0.25W
4xxx	4822 051 10008	0Ω 5% 0.25W

-∿-

5401	4822 156 20966	47μH
5401	4822 157 71295	100μH
5530	4822 152 20559	390μH 10%

-▶|-

6301	4822 130 30842	BAV21
6302	4822 130 81015	LLZ-C10
6303	4822 130 80877	BAV103
6331	4822 130 80877	BAV103
6345	4822 130 82192	LLZ-C8V2
6361	4822 130 30842	BAV21
6383	4822 130 80446	LL4148
6411	4822 130 32831	BZX79-F3V0
6421▲	4822 130 30621	1N4148
6422	4822 130 81512	LLZ-C6V2
6423	4822 130 34382	BZX79-F8V2
6518	4822 130 80446	LL4148
6519	4822 130 80446	LL4148

⊗ ▭

7302	4822 130 41773	BF869
7303▲	5322 130 41982	BC848B
7304	4822 130 41782	BF422
7305	4822 130 41646	BF423
7331	4822 130 41773	BF869
7333▲	5322 130 41982	BC848B
7334	4822 130 41782	BF422
7335	4822 130 41646	BF423
7345	5322 130 41983	BC858B
7361	4822 130 41773	BF869
7363▲	5322 130 41982	BC848B
7364	4822 130 41782	BF422
7365	4822 130 41646	BF423
7383	4822 130 41782	BF422
7391	4822 130 41646	BF423
7411	4822 130 40937	BC548B
7530	5322 130 60159	BC846B
7533	4822 130 63015	BD440
7534	4822 130 44283	BC636
7537▲	5322 130 41982	BC848B
7538▲	5322 130 41982	BC848B

1003 Euro module [F]

Various

	4822 267 30631	2P cinch female
	4822 267 50621	7P male white
▲	4822 267 50721	9P male white
▲	4822 267 60243	Euroconnector blue
	4822 256 91879	Holder
1003	4822 212 31624	Euro module (non teletext)
1003	4822 212 31625	Euro module (teletext)
1003	4822 212 31626	Euro module (3^{RD} scart + teletext)
1816▲	4822 252 51169	Fuse 250 mA
1910	4822 242 73552	Crystal 13.875MHz

-||-

2200	4822 121 51299	1nF 10% 50V
2201▲	4822 124 40433	47μF 20% 25V
2202	4822 121 51299	1nF 10% 50V
2203▲	4822 124 40433	47μF 20% 25V
2204	4822 122 31211	100pF 10% 500V
2205	4822 121 51252	470nF 5% 63V
2206	4822 122 31211	100pF 10% 500V
2207	4822 121 51252	470nF 5% 63V
2208	4822 121 51252	470nF 5% 63V
2209	4822 121 51252	470nF 5% 63V
2210	4822 121 51252	470nF 5% 63V
2211▲	4822 124 40433	47μF 20% 25V
2212▲	4822 124 40433	47μF 20% 25V
2213	4822 121 41857	10nF 5% 250V
2214	4822 121 41857	10nF 5% 250V
2215	5322 124 41431	22μF 20% 35V
2216	5322 124 41431	22μF 20% 35V
2217	4822 124 40198	470μF 20% 16V
2218	5322 124 41431	22μF 20% 35V
2219	5322 124 41431	22μF 20% 35V
2220	4822 122 31116	2.2nF 10% 500V
2221	4822 122 31116	2.2nF 10% 500V
2222	4822 122 31116	2.2nF 10% 500V
2223	4822 122 31116	2.2nF 10% 500V
2800	4822 124 41643	100μF 20% 16V
2805	4822 124 40198	470μF 20% 16V
2806	5322 124 41431	22μF 20% 35V
2807▲	4822 124 40246	4.7μF 20% 63V
2808▲	4822 124 40246	4.7μF 20% 63V
2810	4822 124 41643	100μF 20% 16V
2813▲	4822 124 40246	4.7μF 20% 63V
2814	4822 121 41856	22nF 5% 250V
2822	4822 126 13161	100nF 10% 25V
2825	4822 122 32139	12pF 2% 63V
2826	4822 122 32139	12pF 2% 63V
2830	5322 121 42386	100nF 5% 63V
2832	5322 122 32531	100pF 5% 50V
2833▲	4822 124 40196	220μF 20% 16V
2834	4822 126 12944	47nF 10% 50V
2835▲	4822 124 40246	4.7μF 20% 63V
2837	5322 122 32269	6.8pF 5% 50V
2838	4822 124 41643	100μF 20% 16V
2890	4822 126 13161	100nF 10% 25V
2900▲	4822 124 40246	4.7μF 20% 63V
2901▲	4822 124 40433	47μF 20% 25V
2908	4822 122 31211	100pF 10% 500V
2909	4822 122 31211	100pF 10% 500V
2910▲	4822 122 33177	10nF 20% 50V
2911	5322 126 10794	220pF 5% 63V
2912	5322 122 32481	15pF 5% 50V
2913	5322 122 32481	15pF 5% 50V
2914	4822 126 13161	100nF 10% 25V
2915	4822 126 13161	100nF 10% 25V
2916	5322 126 10794	220pF 5% 63V
2917▲	4822 122 33177	10nF 20% 50V
2918	5322 122 32452	47pF 5% 63V
2920	4822 126 13161	100nF 10% 25V
2925▲	4822 122 33177	10nF 20% 50V
2926	5322 124 41431	22μF 20% 35V
2927	4822 124 41643	100μF 20% 16V

-▭-

3200	4822 116 52211	150Ω 5% 0.5W
3201	4822 051 20563	56k 5% 0.1W
3202	4822 116 52211	150Ω 5% 0.5W
3203	4822 051 20563	56k 5% 0.1W
3204	4822 050 11002	1k 1% 0.4W
3205	4822 050 11002	1k 1% 0.4W
3206	4822 051 20334	330k 5% 0.1W
3207	4822 051 20334	330k 5% 0.1W
3208▲	4822 116 52272	330k 5% 0.5W
3209	4822 051 20334	330k 5% 0.1W
3210	4822 051 20333	33k 5% 0.1W
3211	4822 051 20332	3k3 5% 0.1W
3212	4822 051 20333	33k 5% 0.1W
3213	4822 051 20332	3k3 5% 0.1W
3214	4822 051 20563	56k 5% 0.1W
3215	4822 051 20563	56k 5% 0.1W
3216	4822 116 52201	75Ω 5% 0.5W
3217	4822 116 52201	75Ω 5% 0.5W
3218	4822 051 20153	15k 5% 0.1W
3220	4822 051 20153	15k 5% 0.1W
3222	4822 051 20562	5k6 5% 0.1W
3223	4822 051 20562	5k6 5% 0.1W
3224	4822 051 20562	5k6 5% 0.1W

BTB = Board To Board; WTB = Wire To Board

3966	4822 051 20332	3k3 5% 0.1W
3967	4822 051 20104	100k 5% 0.1W
3968	4822 051 20104	100k 5% 0.1W
3969	4822 051 20683	68k 5% 0.1W
3970	4822 051 20683	68k 5% 0.1W
3971	4822 051 20153	15k 5% 0.1W
3972▲	4822 116 52233	10k 5% 0.5W
3973	4822 051 20222	2k2 5% 0.1W
3974	4822 116 80173	10k 5% 0.5W
3975	4822 116 52201	75Ω 5% 0.5W
3976	4822 050 11002	1k 1% 0.4W
3977	4822 116 52175	100Ω 5% 0.5W
3978	4822 116 52201	75Ω 5% 0.5W
3979	4822 116 52175	100Ω 5% 0.5W
3980	4822 051 20221	220Ω 5% 0.1W
3981	4822 051 20471	470Ω 5% 0.1W
3982	4822 051 20101	100Ω 5% 0.1W
3983	4822 051 20471	470Ω 5% 0.1W
3985▲	4822 116 52256	2k2 5% 0.5W
3986	4822 116 52296	6k8 5% 0.5W
3987	4822 116 80175	4k7 5% 0.5W
3988	4822 051 20182	1k8 5% 0.1W
3989	4822 051 20182	1k8 5% 0.1W
3990	4822 116 52175	100Ω 5% 0.5W
3991	4822 116 52211	150Ω 5% 0.5W
3992	4822 116 52211	150Ω 5% 0.5W

⏦

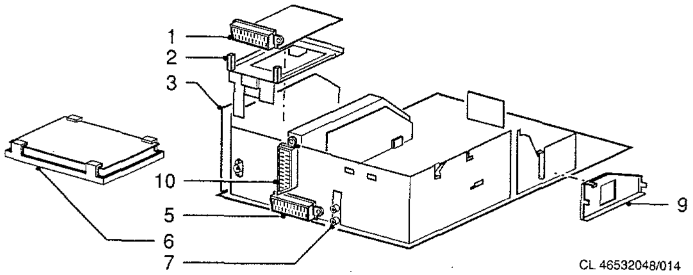
5950	4822 157 53634	5.6μH 10%

▶|

6950	4822 130 80446	LL4148

⊗ ▭

7950	5322 209 10576	HEF4053BP
7951	5322 130 42136	BC848C
7952	5322 130 42136	BC848C
7953	5322 130 42136	BC848C
7954	5322 130 42136	BC848C
7975	5322 130 42136	BC848C
7976	5322 130 42136	BC848C
7977	4822 130 42513	BC858C
7978	4822 130 42513	BC858C
7979	5322 130 42136	BC848C



CL 46532048/014
270694

Mechanical parts list

1	4822 267 60366	*Third scart* euroconnector
2	4822 404 31322	3rd scart holder
3	Not applicable	
5	4822 267 60243	Euroconnector
6	4822 403 70926	Sep. mains holder
7	4822 267 30631	2 *Fold cinch*
9	4822 404 31317	Mains filter bracket
10	4822 267 60243	Euroconnector

1003 IF module [J/K/L/M]

Various

	4822 265 31059	5P red
1003	4822 212 31618	IF module Nicam PAL I
1003	4822 212 31619	IF module Stereo PAL BG
1003	4822 212 31621	IF module Nicam PAL BG
1003	4822 212 31622	IF module Stereo P/S BGLI
1003	4822 212 31623	IF module Stereo P/S BG/DK
1000	4822 242 80295	SAW 38.9 MHz Stereo PAL BG
1000	4822 242 81436	SAW 38.9 MHz Stereo P/S
1000	4822 242 81717	SAW 38.9 MHz NICAM PAL BG
1000	4822 242 81718	SAW 38.9 MHz NICAM PAL I
1001	4822 153 30025	6.0 MHz
1001	4822 242 72211	5.5 MHz
1100	4822 242 70714	5.5 MHz
1100	4822 242 71713	6.0 MHz
1101	4822 242 70485	5.74 MHz
1102	4822 242 70714	5.5 MHz
1102	4822 242 71713	6.0 MHz
1102	4822 242 72057	6.5 MHz
1103	4822 242 81423	38.9 MHz P/S BGLI
1103	4822 242 81716	38.9 MHz P/S BGDK
1104	4822 242 81715	33.4 MHz
1200	4822 242 81813	Crystal 10 MHz
1300	4822 242 81187	Crystal 11.700 MHz
1300	4822 242 81188	Crystal 13.104 MHz
1301	4822 242 81719	Crystal 8.192 MHz
1302	4822 242 72301	TH316BOM-20800 DAF
1302	4822 242 72303	TH316BQM

⊣⊢

2000	4822 126 13159	180pF 5% 50V
2001	4822 126 13162	56pF 5% 50V
2002	4822 126 13161	100nF 10% 25V
2003	4822 124 41576	2.2µF 20% 50V
2004	4822 122 32927	220nF 20% 50V
2004	4822 126 13061	220nF 20% 25V
2005▲	5322 126 10223	4.7nF 10% 63V
2007	5322 122 31866	6.8nF 10% 63V
2007▲	5322 126 10223	4.7nF 10% 63V
2008	4822 126 13161	100nF 10% 25V
2008	4822 126 13346	39nF 10% 50V
2009	4822 124 41576	2.2µF 20% 50V
2010▲	4822 124 40246	4.7µF 20% 63V
2010▲	4822 124 40433	47µF 20% 25V
2011	5322 122 32269	6.8pF 5% 50V
2011	5322 122 32286	3.3pF 5% 50V
2012▲	4822 122 33177	10nF 20% 50V
2013	4822 126 13161	100nF 10% 25V
2014	4822 122 33496	100nF 10% 63V
2015	4822 124 41643	100µF 20% 16V
2016▲	4822 122 33177	10nF 20% 50V
2017	4822 126 13161	100nF 10% 25V
2018	4822 122 32646	5.6nF 10% 50V
2018	4822 126 13161	100nF 10% 25V
2020	5322 122 33537	1.2pF 5% 63V
2021	5322 122 33063	2.2pF 5% 50V
2100	5322 124 41431	22µF 20% 35V
2101	5322 124 41431	22µF 20% 35V
2102▲	5322 126 10223	4.7nF 10% 63V
2103▲	5322 126 10223	4.7nF 10% 63V
2106▲	5322 126 10223	4.7nF 10% 63V
2107	4822 124 41576	2.2µF 20% 50V
2108▲	5322 126 10223	4.7nF 10% 63V
2200	4822 122 33219	1.8nF 10% 50V
2201	4822 051 10008	Jumper
2202▲	4822 122 33177	10nF 20% 50V
2203	4822 126 13161	100nF 10% 25V
2204	4822 126 13161	100nF 10% 25V
2205▲	4822 122 33342	33nF 10% 63V
2206	4822 122 32646	5.6nF 10% 50V
2207	4822 122 32646	5.6nF 10% 50V
2208▲	4822 122 33342	33nF 10% 63V
2209	4822 122 33128	15nF 10% 63V
2210	4822 122 33128	15nF 10% 63V
2211	4822 126 13161	100nF 10% 25V
2212	4822 126 13161	100nF 10% 25V
2214	4822 124 40248	10µF 20% 63V
2215▲	4822 124 40196	220µF 20% 16V
2216▲	4822 124 40246	4.7µF 20% 63V
2217	4822 124 41643	100µF 20% 16V
2218▲	4822 124 40433	47µF 20% 25V
2219▲	4822 124 40246	4.7µF 20% 63V
2220▲	4822 124 40196	220µF 20% 16V
2221▲	4822 124 40196	220µF 20% 16V
2222	5322 121 42498	680nF 5% 63V
2223	5322 121 42498	680nF 5% 63V
2224	4822 122 32927	220nF 20% 50V
2225	4822 122 32927	220nF 20% 50V
2226	4822 124 41643	100µF 20% 16V
2227	4822 124 41643	100µF 20% 16V
2228	4822 124 41643	100µF 20% 16V
2228	4822 124 80702	100µF 20% 25V
2229	4822 124 41643	100µF 20% 16V
2230	5322 124 41431	22µF 20% 35V
2231	5322 124 41431	22µF 20% 35V
2232	5322 122 34098	10nF 10% 63V
2233	5322 122 34098	10nF 10% 63V
2234	4822 122 32927	220nF 20% 50V
2235	4822 122 32927	220nF 20% 50V
2236	4822 122 32927	220nF 20% 50V
2237	5322 124 41431	22µF 20% 35V
2238	5322 124 41431	22µF 20% 35V
2300	4822 121 42408	220nF 5% 63V
2301	4822 126 13161	100nF 10% 25V
2302	4822 126 13161	100nF 10% 25V
2303	4822 122 33514	68pF 5% 50V
2304	5322 122 31863	330pF 5% 50V
2305	4822 126 13161	100nF 10% 25V
2306	5322 122 33538	150pF 2% 63V
2307	5322 122 33538	150pF 2% 63V
2308▲	5322 122 34123	1nF 10% 50V
2309	4822 126 13161	100nF 10% 25V
2310	5322 122 31863	330pF 5% 50V
2311	5322 122 31866	6.8nF 10% 63V
2312	5322 122 31863	330pF 5% 50V
2313▲	4822 124 40433	47µF 20% 25V
2318	5322 122 31863	330pF 5% 50V
2319	4822 122 33514	68pF 5% 50V
2320▲	4822 122 33172	390pF 5% 50V
2321▲	5322 122 34123	1nF 10% 50V
2322▲	4822 122 33177	10nF 20% 50V
2323▲	5322 122 32654	22nF 10% 63V
2324	5322 121 42661	330nF 5% 63V
2325▲	5322 122 34123	1nF 10% 50V
2328▲	4822 122 33177	10nF 20% 50V
2329	5322 122 32659	33pF 5% 50V
2330	5322 122 32659	33pF 5% 50V
2331	5322 122 32531	100pF 5% 50V
2332	5322 122 32531	100pF 5% 50V
2333▲	4822 122 33177	10nF 20% 50V
2334	4822 126 13161	100nF 10% 25V
2335	4822 126 13161	100nF 10% 25V
2336▲	4822 124 40433	47µF 20% 25V
2340▲	4822 122 33177	10nF 20% 50V
2343	4822 122 33219	1.8nF 10% 50V
2343▲	5322 122 32654	22nF 10% 63V
2344	4822 122 33219	1.8nF 10% 50V
2344▲	5322 122 32654	22nF 10% 63V
2347	4822 124 41643	100µF 20% 16V

─▭─

3000	4822 116 52211	150Ω 5% 0.5W
3001	4822 101 11192	22k 30% LIN 0.1W
3002	4822 051 20181	180Ω 5% 0.1W
3004	4822 116 52289	5k6 5% 0.5W
3011	4822 051 20223	22k 5% 0.1W
3011	4822 116 52257	22k 5% 0.5W
3012	4822 051 20223	22k 5% 0.1W
3013	4822 051 20101	100Ω 5% 0.1W
3013	4822 051 20151	150Ω 5% 0.1W
3013	4822 051 20181	180Ω 5% 0.1W
3013	4822 051 20271	270Ω 5% 0.1W
3013	4822 051 20391	390Ω 5% 0.1W
3014	4822 051 20123	12k 5% 0.1W
3015	4822 051 20223	22k 5% 0.1W
3016	4822 051 20562	5k6 5% 0.1W
3018	4822 051 20106	10M 5% 0.1W
3019	4822 051 20474	470k 5% 0.1W
3024	4822 051 20562	5k6 5% 0.1W
3026▲	4822 052 10109	10Ω 5% 0.33W
3027	4822 051 20122	1k2 5% 0.1W
3031	4822 051 20222	2k2 5% 0.1W
3033	4822 053 10688	6Ω8 5% 1W
3034	4822 051 20101	100Ω 5% 0.1W
3098	4822 051 20104	100k 5% 0.1W
3098	4822 051 20223	22k 5% 0.1W
3098	4822 051 20224	220k 5% 0.1W
3098	4822 051 20564	560k 5% 0.1W
3098	4822 051 20822	8k2 5% 0.1W
3100	4822 051 20561	560Ω 5% 0.1W
3101	4822 051 20561	560Ω 5% 0.1W
3102	4822 051 20561	560Ω 5% 0.1W
3103	4822 051 20222	2k2 5% 0.1W
3104	4822 051 20103	10k 5% 0.1W
3106	4822 116 52234	100Ω 5% 0.5W
3107	4822 116 52234	100Ω 5% 0.5W
3108	4822 051 20471	470Ω 5% 0.1W
3109	4822 051 20471	470Ω 5% 0.1W
3113	4822 116 52234	100Ω 5% 0.5W
3114	4822 051 20103	10k 5% 0.1W
3115	4822 051 20103	10k 5% 0.1W
3116	4822 051 20103	10k 5% 0.1W
3117	4822 051 20222	2k2 5% 0.1W
3200	4822 051 10102	1k 2% 0.25W
3207	4822 051 20822	8k2 5% 0.1W
3208▲	4822 052 10181	180Ω 5% 0.33W
3211	4822 051 20122	1k2 5% 0.1W
3212	4822 051 20223	22k 5% 0.1W
3212	4822 051 20473	47k 5% 0.1W
3214	4822 051 20222	2k2 5% 0.1W
3218	4822 051 20474	470k 5% 0.1W
3219	4822 051 20564	560k 5% 0.1W
3220	4822 051 20563	56k 5% 0.1W
3221	4822 051 20563	56k 5% 0.1W
3222	4822 051 20823	82k 5% 0.1W
3223	4822 051 20333	33k 5% 0.1W
3224	4822 051 20101	100Ω 5% 0.1W
3225	4822 051 20101	100Ω 5% 0.1W
3230	4822 051 20562	5k6 5% 0.1W
3231	4822 051 20332	3k3 5% 0.1W
3232	4822 051 10102	1k 2% 0.25W
3233	4822 051 10102	1k 2% 0.25W
3234	4822 051 20101	100Ω 5% 0.1W
3234▲	4822 052 10181	180Ω 5% 0.33W
3235	4822 051 20101	100Ω 5% 0.1W
3237	4822 051 20823	82k 5% 0.1W
3238	4822 051 20333	33k 5% 0.1W
3240	4822 051 20101	100Ω 5% 0.1W
3241	4822 051 20101	100Ω 5% 0.1W
3300	4822 051 20563	56k 5% 0.1W
3301▲	4822 051 20109	10Ω 5% 0.1W
3302	4822 051 20228	2Ω2 5% 0.1W
3303	4822 051 20392	3k9 5% 0.1W
3304	4822 051 20223	22k 5% 0.1W
3305	4822 051 20223	22k 5% 0.1W
3306	4822 051 20104	100k 5% 0.1W
3307	4822 051 20159	15Ω 5% 0.1W
3308	4822 051 20224	220k 5% 0.1W
3309	4822 051 20823	82k 5% 0.1W
3314	4822 051 20471	470Ω 5% 0.1W
3315	4822 051 20563	56k 5% 0.1W
3316	4822 051 10102	1k 2% 0.25W
3317	4822 051 20105	1M 5% 0.1W
3318	4822 051 20223	22k 5% 0.1W
3319	4822 117 11139	1k5 1% 0.1W
3320	4822 051 20103	10k 5% 0.1W
3321	4822 051 20104	100k 5% 0.1W
3322	4822 051 20273	27k 5% 0.1W
3323	4822 051 20104	100k 5% 0.1W
3324	4822 051 20103	10k 5% 0.1W
3326	4822 051 20681	680Ω 5% 0.1W
3327	4822 051 20182	1k8 5% 0.1W
3328	4822 117 11139	1k5 1% 0.1W
3329	4822 051 20331	330Ω 5% 0.1W
3331	4822 051 20332	3k3 5% 0.1W
3332	4822 051 20332	3k3 5% 0.1W
3333	4822 116 52224	470Ω 5% 0.5W
3334	4822 051 20122	1k2 5% 0.1W
3335	4822 051 20471	470Ω 5% 0.1W
3336	4822 051 20101	100Ω 5% 0.1W
3337	4822 051 20101	100Ω 5% 0.1W
3340	4822 051 20122	1k2 5% 0.1W
3341	4822 051 20471	470Ω 5% 0.1W
4xxx	4822 051 10008	0Ω 5% 0.25W

∿

5000	4822 157 61898	0.47µH 10%
5001	4822 157 71099	0.28µH 10%
5002	4822 157 53066	15µH 10%
5002	4822 157 53303	12µH 10%
5002	4822 157 53634	5.6µH 10%
5002	4822 157 62767	8.2µH
5004	4822 157 53302	1µH
5004	4822 157 53539	0.27µH 5%
5100	4822 157 71098	1.8µH
5201	4822 157 71296	1500µH
5300	4822 157 50975	1 mH
5301	4822 157 50975	1 mH

▶|

6003	4822 130 80446	LL4148
6007	4822 130 80954	LLZ-C5V6
6007	4822 130 81227	LLZ-F5V6
6100	4822 130 80888	BA682
6106	4822 130 80888	BA682
6107	4822 130 80888	BA682
6200	4822 130 80446	LL4148
6201	4822 130 80446	LL4148
6202	4822 130 82192	LLZ-C8V2
6203	4822 130 80446	LL4148
6204	4822 130 80446	LL4148
6205	4822 130 82192	LLZ-C8V2
6206	4822 130 80446	LL4148
6207	4822 130 80446	LL4148
6208	4822 130 80446	LL4148
6209	4822 130 80446	LL4148
6300	4822 130 80446	LL4148
6301	5322 130 34689	BBY31
6302	5322 130 80119	BBY40

⊗ ▭

7001	5322 209 10576	HEF4053BP
7004	4822 209 33707	TDA9815/V2
7005	5322 130 42136	BC848C
7008	4822 130 44121	BC338
7102	5322 130 42136	BC848C
7103	5322 130 42136	BC848C
7104	5322 130 42136	BC848C
7201	5322 130 42136	BC848C
7202	4822 130 42513	BC858C
7203	5322 130 42136	BC848C
7204	4822 209 33706	TDA9861/V1
7205	4822 209 32863	TDA9840/V2
7206	5322 130 42136	BC848C
7207	5322 130 42136	BC848C
7208	5322 130 42136	BC848C
7209	4822 130 42513	BC858C
7302	5322 130 42136	BC848C
7303	5322 130 42136	BC848C
7304	4822 209 30909	TDA8732/C1
7305	4822 209 32959	SAA7282AZP
7306	5322 130 42136	BC848C
7307	5322 130 42136	BC848C

1006 Third scart module [N]

Various

	4822 265 31214	3P male black
▲	4822 267 50721	9P male white
	4822 267 51276	9P female white
	4822 267 60366	Euroconnector
1006	4822 212 31631	Third scart module

⊣⊢

2950	4822 124 41643	100µF 20% 16V
2951	4822 122 31116	2.2nF 10% 500V
2952	4822 122 31116	2.2nF 10% 500V
2953	4822 122 31211	100pF 10% 500V
2954	4822 122 31211	100pF 10% 500V
2955	4822 121 51252	470nF 5% 63V
2956	4822 121 51252	470nF 5% 63V
2957	4822 121 51252	470nF 5% 63V
2958	4822 121 51252	470nF 5% 63V
2959	4822 121 51252	470nF 5% 63V
2960	4822 122 32927	220nF 20% 50V
2961	4822 122 32927	220nF 20% 50V
2962	4822 122 32927	220nF 20% 50V
2963	4822 122 32927	220nF 20% 50V
2964	4822 122 31116	2.2nF 10% 500V
2965	4822 122 31116	2.2nF 10% 500V
2975	4822 124 41643	100µF 20% 16V
2978▲	4822 124 40246	4.7µF 20% 63V
2980	4822 126 13161	100nF 10% 25V
2981	4822 121 41856	22nF 5% 250V

─▭─

3951	4822 116 52211	150Ω 5% 0.5W
3952	4822 116 52211	150Ω 5% 0.5W
3953▲	4822 116 52269	3k3 5% 0.5W
3954▲	4822 116 52269	3k3 5% 0.5W
3955	4822 051 20334	330k 5% 0.1W
3956	4822 051 20334	330k 5% 0.1W
3957	4822 051 20334	330k 5% 0.1W
3958	4822 051 20334	330k 5% 0.1W
3959	4822 051 20332	3k3 5% 0.1W
3960	4822 051 20332	3k3 5% 0.1W
3961	4822 051 20683	68k 5% 0.1W
3962	4822 051 20683	68k 5% 0.1W
3963	4822 051 20104	100k 5% 0.1W
3964	4822 051 20332	3k3 5% 0.1W
3965	4822 051 20104	100k 5% 0.1W

BTB = Board To Board; WTB = Wire To Board

Spare parts list / Stükliste / Liste des pièces

3966	4822 051 20332	3k3 5% 0.1W
3967	4822 051 20104	100k 5% 0.1W
3968	4822 051 20104	100k 5% 0.1W
3969	4822 051 20683	68k 5% 0.1W
3970	4822 051 20683	68k 5% 0.1W
3971	4822 051 20153	15k 5% 0.1W
3972▲	4822 116 52233	10k 5% 0.5W
3973	4822 051 20222	2k2 5% 0.1W
3974	4822 116 80173	10k 5% 0.5W
3975	4822 116 52201	75Ω 5% 0.5W
3976	4822 050 11002	1k 1% 0.4W
3977	4822 116 52175	100Ω 5% 0.5W
3978	4822 116 52201	75Ω 5% 0.5W
3979	4822 116 52175	100Ω 5% 0.5W
3980	4822 051 20221	220Ω 5% 0.1W
3981	4822 051 20471	470Ω 5% 0.1W
3982	4822 051 20101	100Ω 5% 0.1W
3983	4822 051 20471	470Ω 5% 0.1W
3985▲	4822 116 52256	2k2 5% 0.5W
3986	4822 116 52296	6k8 5% 0.5W
3987	4822 116 80175	4k7 5% 0.5W
3988	4822 051 20182	1k8 5% 0.1W
3989	4822 051 20182	1k8 5% 0.1W
3990	4822 116 52175	100Ω 5% 0.5W
3991	4822 116 52211	150Ω 5% 0.5W
3992	4822 116 52211	150Ω 5% 0.5W

∿

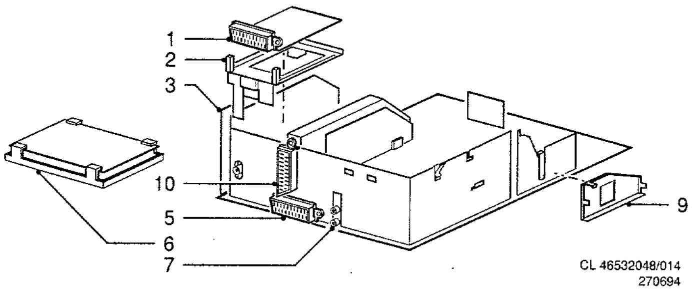
5950	4822 157 53634	5.6µH 10%

▶|

6950	4822 130 80446	LL4148

▭

7950	5322 209 10576	HEF4053BP
7951	5322 130 42136	BC848C
7952	5322 130 42136	BC848C
7953	5322 130 42136	BC848C
7954	5322 130 42136	BC848C
7975	5322 130 42136	BC848C
7976	5322 130 42136	BC848C
7977	4822 130 42513	BC858C
7978	4822 130 42513	BC858C
7979	5322 130 42136	BC848C



CL 46532048/014
270694

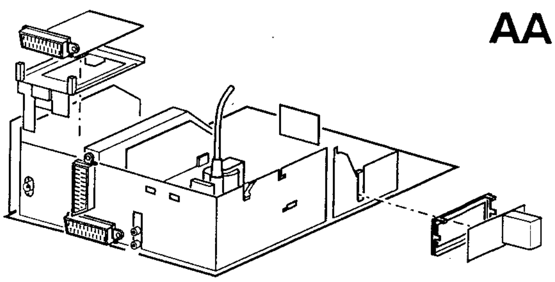
Mechanical parts list

1	4822 267 60366	Third scart euroconnector
2	4822 404 31322	3rd scart holder
3	Not applicable	
5	4822 267 60243	Euroconnector
6	4822 403 70926	Sep. mains holder
7	4822 267 30631	2 Fold cinch
9	4822 404 31317	Mains filter bracket
10	4822 267 60243	Euroconnector

Farbfernsehenempfänger **Chassis**

Service
Service
Service

GR 2.4
AA



CL 46532048/016
270694

ServiceManual

www.manualscenter.com

Inhaltsverzeichnis

Seite

1. Technische Daten 2
2. Anschlußmöglichkeiten 2
3. Warnungen und Anmerkungen 3
4. Mechanische Anweisungen 4
5. Überssicht Oszillogramme 4
   Schaltplan 4
   Teststellenübersicht 4
   Detailliertes Blockschaltbild 5
6. *Elektrische Schaltpläne und Leiterplatten-Layout*

		Schaltplan	*PWB*
Bedienung	(Schaltplan A)	6	9/11
Tuner, ZF und Tonsignal-Verarbeitung	(Schaltplan B)	7	9/11
Videosignal-Verarbeitung	(Schaltplan C)	8	9/11
Stromversorgung, Synchronisierung, Raster und Zeile	(Schaltplan D)	10	9/11
Bildröhrenplatte	(Schaltplan E)	12	12
Euro Modul (Videotext)	(Schaltplan F1/F2)	15	14
SOPS Kontroll-Modul	(Diagramm G)	17	20
Kammfilter	(Diagramm H)	18	19
Scann-Modul	(Diagramm I)	20	20
NICAM ZF/Tonmodul	(Schaltplan J/K)	21/22	23
Stereo ZF/Tonmodul	(Schaltplan L/M)	25/26	24
Drittes Scart-Modul	(Diagramm N)	27	19

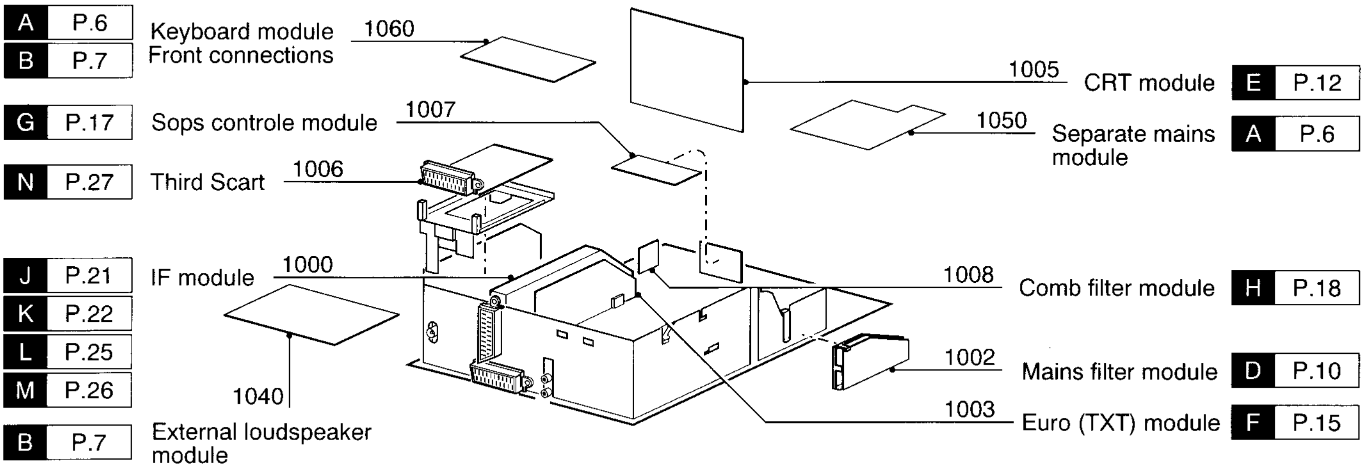
7. Elektrische Abgleicharbeiten 28
8. Fehlermeldungen - Übersicht 28
9. Hinweise für den Gebrauch und Übersichtder Menü 29
10. Stücklisten für elektrische Bauteile 31

Published by Consumer Electronics Printed in The Netherlands Copyright reserved Subject to modification (D) 4822 727 20664

PCS 74 232 D

PHILIPS

PWB location drawing


A P.6
B P.7
Keyboard module 1060
Front connections
G P.17 Sops controle module 1007
N P.27 Third Scart 1006
J P.21
K P.22
L P.25
M P.26
IF module 1000
1040
B P.7 External loudspeaker module
1005 CRT module E P.12
1050 Separate mains module A P.6
1008 Comb filter module H P.18
1002 Mains filter module D P.10
1003 Euro (TXT) module F P.15

CL 46532048/015
270694

3. Sicherheitsanweisungen, Wartungsanweisungen, Warnhinweise und Anmerkungen

Sicherheitsanweisungen für Reparaturen

1. Sicherheitsvorschriften erfordern, daß während einer Reparatur:
   - das Gerät über einen Trenntransformator mit der Netzspannung verbunden ist;
   - die mit dem Symbol ▲ gekennzeichneten Sicherheitsbauelemente durch Bauelemente ersetzt werden müssen, die mit den Originalteilen identisch sind;
   - beim Austausch einer Bildröhre eine Schutzbrille getragen werden muß.
2. Sicherheitsvorschriften erfordern auch, daß nach einer Reparatur:
   - das Gerät in seinen ursprünglichen Zustand zurückgebracht werden muß;
   - das Gehäuse auf Beschädigungen hin überprüft werden muß, um eine Berührung durch der Kunde der innenliegenden Teile zu vermeiden;
   - die Isolierung des Netzkabels auf äußere Beschädigung hin überprüft werden muß;
   - die Zugentlastung des Netzkabels auf ihre Funktion überprüft werden muß;
   - Die Kabelbäume und das Hochspannungskabel korrekt verlegt sind und mit den Kabelklemmen fixiert sind, damit sie nicht die Bildröhre, heiße Bauelemente oder Kühlkörper berühren;
   - der elektrische Widerstand zwischen dem Netzstecker und der Sekundärseite geprüft wird. Diese Prüfung kann folgendermaßen durchgeführt werden:
     - Den Netzstecker aus der Steckdose herausziehen und die beiden Stifte des Netzsteckers mit einem Draht verbinden.
     - Das Fernsehgerät mit dem Netzschalter einschalten.
     - Den Widerstandswert zwischen den Stiften des Netzsteckers und der Metallabschirmung des Tuners oder dem Antennenanschluß am Gerät messen. Der Wert muß zwischen 4,5 MΩ und 12 MΩ liegen.
     - Das Fernsehgerät ausschalten und den Draht zwischen den beiden Stiften des Netzsteckers entfernen.
   - Thermisch belastete Lötverbindungen müssen nachgelötet werden. Hierzu gehören Bauelemente wie der LOT (line output transistor, der Zeilenendstufen-Transistor) und der Rücklauf-Kondensator.

Wartungsanweisungen

Es wird empfohlen, regelmäßig eine Wartungsinspektion von einen qualifizierten Servicetechniker durchzuführen. Die Wartungsintervalle hängen von den Betriebsbedingungen ab.

- Wenn das Gerät in einem Wohnzimmer benutzt wird, sollte es alle 3 bis 5 Jahre überprüft werden. Wird das Gerät zum Beispiel in der Küche oder in anderen Feuchraumen benutzt, beträgt das Wartungsintervall 1 Jahr.
- Während der Wartungsinspektion sind die obengenannten Sicherheitsüberprüfungen nach einer Reparatur durchzuführen. Das Netzteil und die Ablenkungsendstufen am Chassis, die Bildröhren-Leiterplatte und der Hogspannungsanschluß der Bildröhre müssen gereinigt werden.

Warnungen

1. Um Beschädigungen von ICs und Transistoren zu vermeiden, müssen Hochspannungsüberschläge verhindert werden. Um eine Beschädigung der Bildröhre zu vermeiden, muß die Bildröhre entsprechend dem in Abb. 3.1 dargestellten Verfahren entladen werden. Benutzen Sie einen Hochspannungstaster und ein universelles Multimeter (Einstellung DC-V). Die Bildröhre muß solange entladen werden, bis das Meßgerät 0 V anzeigt (nach ca. 30 s).
2. **ESD**
   Alle ICs und viele andere Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD). Werden sie während der Reparatur nicht sorgfältig behandelt, kann ihre Lebensdauer erheblich verkürzt werden. Sorgen Sie dafür, daß Sie während der Reparatur über ein Handgelenkband mit Widerstand einen Potential-ausgleich schaffen (verb2inden Sie die Leitung des Handgelenkbandes mit einem Punkt, der das gleiche Potential aufweist wie die Gerätemasse). Bauteile und Hilfsmittel müssen ebenfalls auf diesem Potential gehalten werden.
3. Vorsicht bei Messungen im Hochspannungsteil sowie an der Bildröhre.
4. Module oder andere Bauteile niemals bei eingeschaltetem Gerät auswechseln.
5. Für Abgleicharbeiten Kunststoff- anstelle von Metallwerkzeugen benutzens Dadurch werden mögliche Kurzschlüsse oder Instabilität bestimmter Schaltungen vermieden.
6. Um Meßfehler zu vermeiden, dürfen die Kühlbleche nicht als Referenzpunkt für Messungen verwendet werden.
   Das Kühlblech für den Tonsignal-Endverstärker (neben dem Kanalwähler) ist mit -16 V oder -12 V verbunden.
7. Die verwendeten Flat Square Bildröhre bildet zusammen men mit der Ablenkeinheit und der eventuell vorhandenen en Multipoleinheit ein Ganzes. Die Ablenk- und die Multipoleinheit wurden im Werk optimal eingestellt und sollten daher bei Reparaturen nicht nachgeregelt werden.
8. Bei 21"-Geräten ist das Hochspannungskabel in den Zeilentransformator geklebt und kann daher nicht ersetzt werden.

Anmerkungen

1. Die Leiterplatte der Bildröhre enthält gedruckte Funkenbrücken. Alle Funkenbrücken liegen zwischen einer Elektrode der Bildröhre und der Graphitschicht.
2. Black-Line-Geräte sind an dem dicken, abgeschirmten Hochspannungskabel zu erkennen, denn alle anderen Fernsehgeräte sind mit einem dünneren, nicht abgeschirmten Hochspannungskabel versehen.

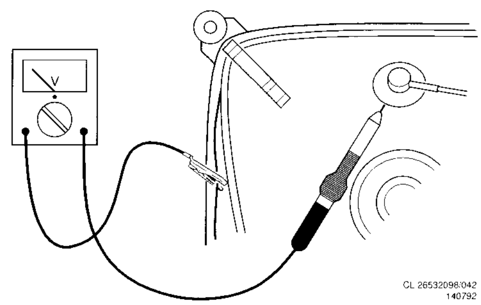


Abb. 3.1

4. Elektrische Abgleicharbeiten

1. Das Abnehmen der Rückwand

Die Rückwand kann erst abgenommen werden, wenn die Schrauben an der Oberseite, der Seitenfläche, ggf. an der Unterseite **und eventuell oben dem EXT2-Anschluß entfernt wurden.**
Bei Subwoofer-Geräten muß auch der Anschluß der Subwoofer-Box auf der entsprechenden Leiterplatte gelöst werden (siehe Abb. 4.2a).

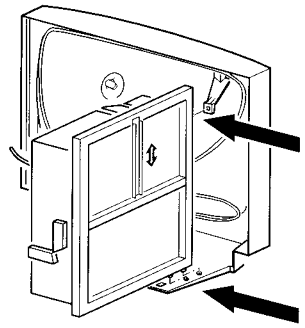
2. Service-Position 1

Service-Postion für das Messen von Testpunkten
Die Kabel von der Entmagnetisierungsspule und ggf. vom PIP-Modul lösen und das Chassis entriegeln. Das Chassis so weit nach hinten ziehen, daß alle Meßpunkte zugänglich sind (siehe Abb. 4.2b).
Um den Tuner und das ZF/Tonmodul zugänglich zu machen, kann der Bügel über diesen Modulen entfernt werden (siehe Abb. 4.3). Das Gerät funktioniert bis auf eine Fehlermeldung auch bei nicht angeschlossenem PIP-Modul normal.

3. Service-Position 2

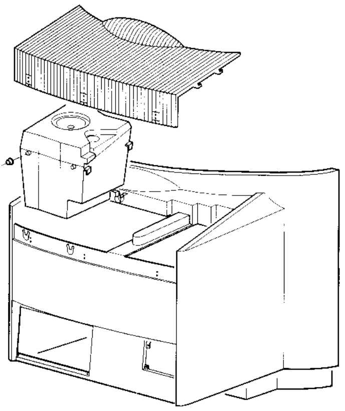
Service-Position für Reparaturen
Das Chassis auf das Kühlblech an der Tunerseite stellen, wenn Service-Position 1 erreicht ist (siehe Abb. 4.4).
Oder, falls es sich um ein FL4 Gerät handelt, dann hat es einen Service-Haken, an dem das Chassis mit Klammer aufgehängt werden kann (siehe Abb. 4.1).
Vorsicht bei der Verdrahtung !

Achtung: Das Kühlblech des Tonsignal-Endverstärkers darf keinen Kurzschluß mit dem Raster/Zeilen-Kühlblech machen, wenn der Bügel des "Third Scart" entfernt ist !



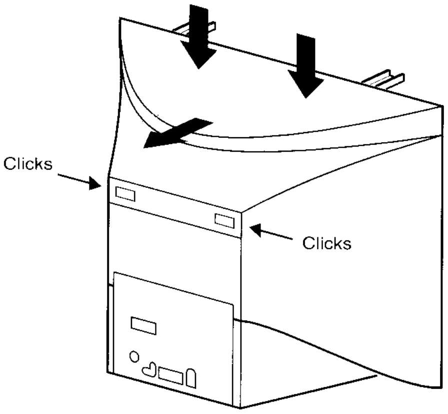
CL 46532048/019
270694

Abb. 4.1



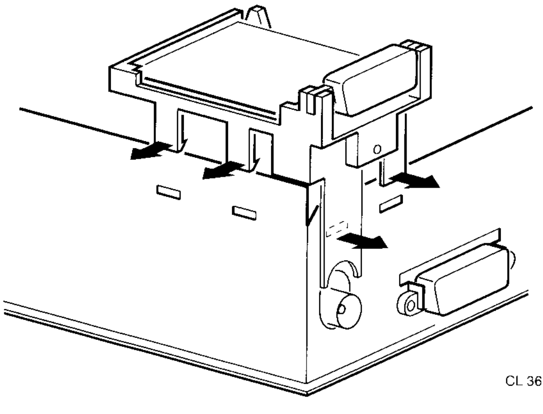
46532048/017
290694

Abb. 4.2a



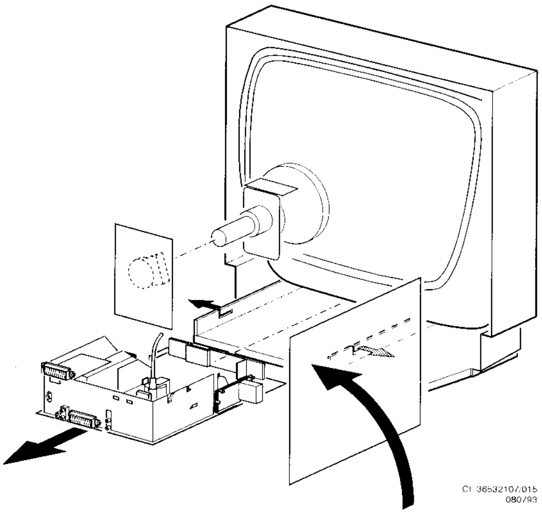
CL 36532107/018
191094

Abb. 4.2b



CL 36532107/014
290693

Abb. 4.3

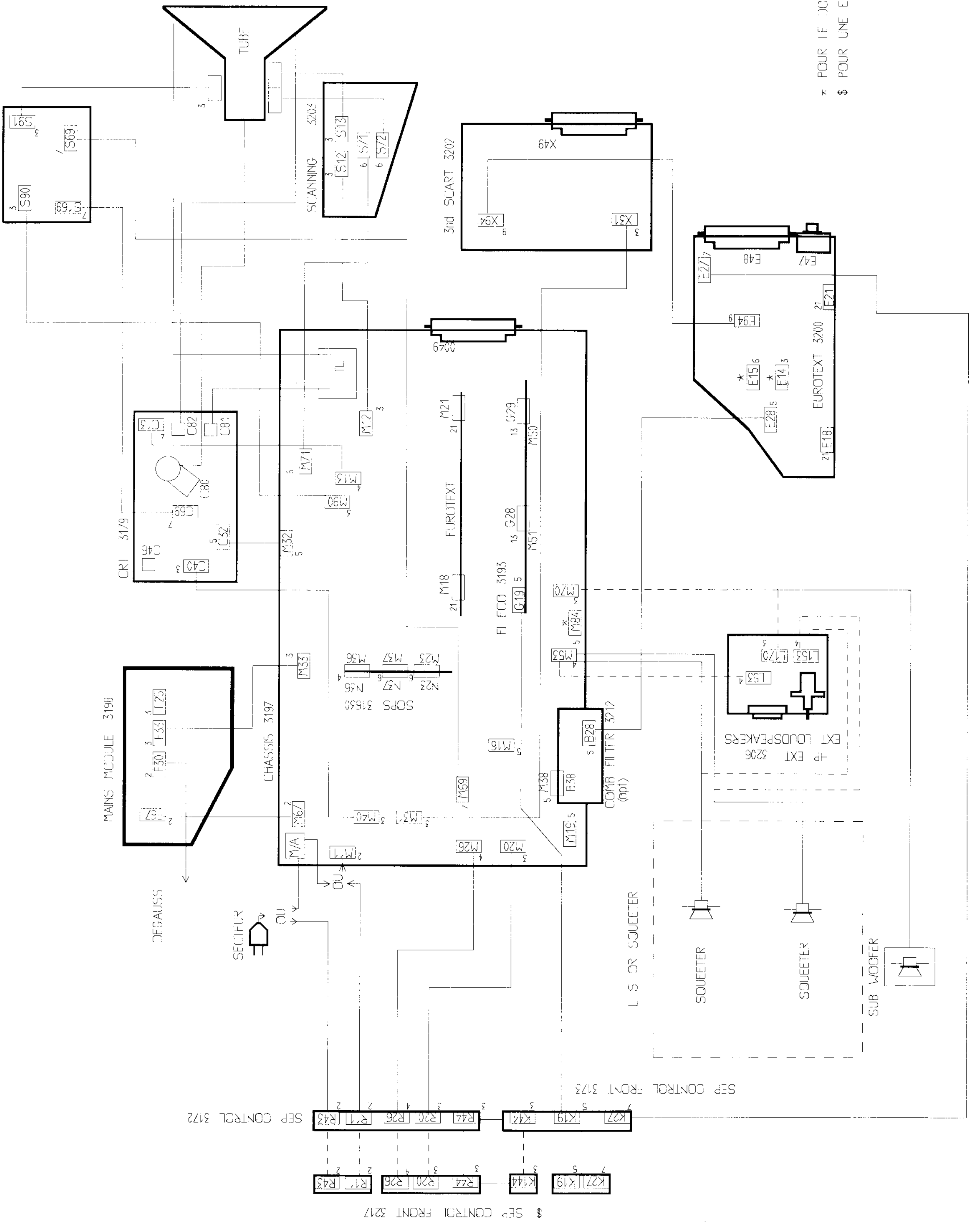


CL 36532107/015
080793

Abb. 4.4

Wiring diagram/Verdrahtungsschema/Schéma de câblage

* POUR LE DOLBY
$ POUR UNE ESTHETIQUE 29" (379)

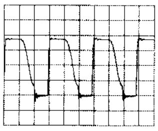

TUBE
SCAVEM 3201
S91
S69
S90
S69
SCANNING 3203
S13
S12
S71
S72
3rd SCART 3202
X49
X94
X31
EUROTEXT 3200
E48
E47
E27
E21
E94
E15
E14
E28
E18
CRT 3179
C73
C82
C81
C80
C69
C32
C46
C43
IL
0049
M12
M71
M15
M90
M32
M21
M18
EUROTEXT
G29
M50
G28
M51
G19
FILECO 3193
M70
M84
M53
M36
M37
M23
N36
N37
N23
SOPS 3165C
M33
CHASSIS 3197
MAINS MODULE 3198
F25
F33
F30
F67
M67
M16
M39
M40
M31
M38
R38
COMB FILTER 3212 (npt)
B28
M19
M/A
M11
M26
M20
DEGAUSS
SECTEUR
OU
L53
L70
L53
HP EXT 3206
EXT LOUDSPEAKERS
L S OR SQUEETER
SQUEETER
SQUEETER
SUB WOOFER
SEP CONTROL FRONT 3173
SEP CONTROL 3172
R43
R11
R26
R20
R44
K44
K19
K27
$ SEP CONTROL FRONT 3217

Oscillograms/Oszillogramme/Oscillogrammes

TP1 = DC 15V9

TP2 = DC -15V9

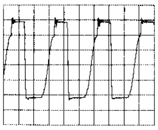
TP3



20V/div AC
5μs div

TP4 = DC 9V7

TP5

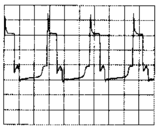


5V/div AC
5μs div

TP6 = DC 4V8

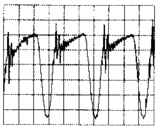
TP7 = DC 298V

TP8



2V/div AC
5μs div

TP9



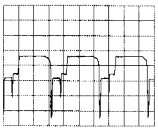
0.2V/div AC
5μs div

TP10 = DC 2V4

TP11 = DC 0V

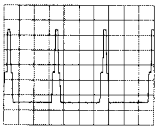
TP12 = DC 2V7

TP14



2V/div AC
20μs div

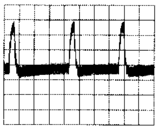
TP16



2V/div AC
20μs div

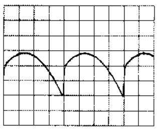
TP17 = DC 0V

TP18



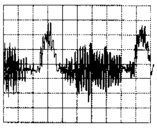
2V/div AC
5ms div

TP19



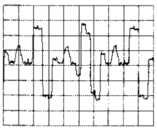
1V/div AC
5ms div

TP20



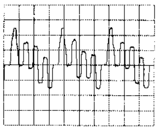
20mV/div AC
10μs div

TP21



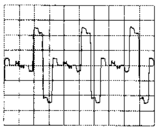
0.1V/div AC
20μs div

TP22



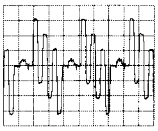
0.2V/div AC
20μs div

TP23



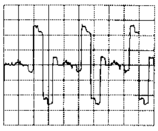
0.2V/div AC
20μs div

TP24



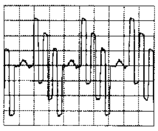
0.2V/div AC
20μs div

TP25



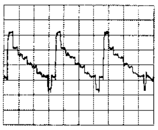
0.2V/div AC
20μs div

TP26



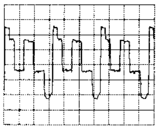
0.2V/div AC
20μs div

TP27



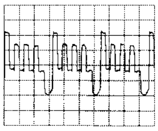
0.1V/div AC
20μs div

TP28



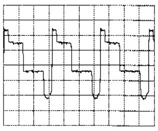
0.5V/div AC
20μs div

TP29



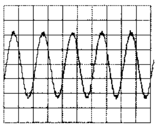
0.5V/div AC
20μs div

TP30



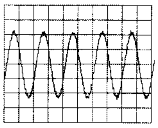
0.5V/div AC
20μs div

TP31



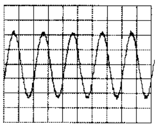
10mV/div AC
0.5ms div

TP32



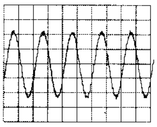
10mV/div AC
0.5ms div

TP33



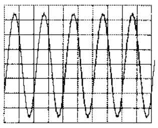
10mV/div AC
0.5ms div

TP34



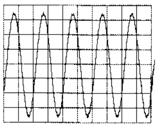
10mV/div AC
0.5ms div

TP35



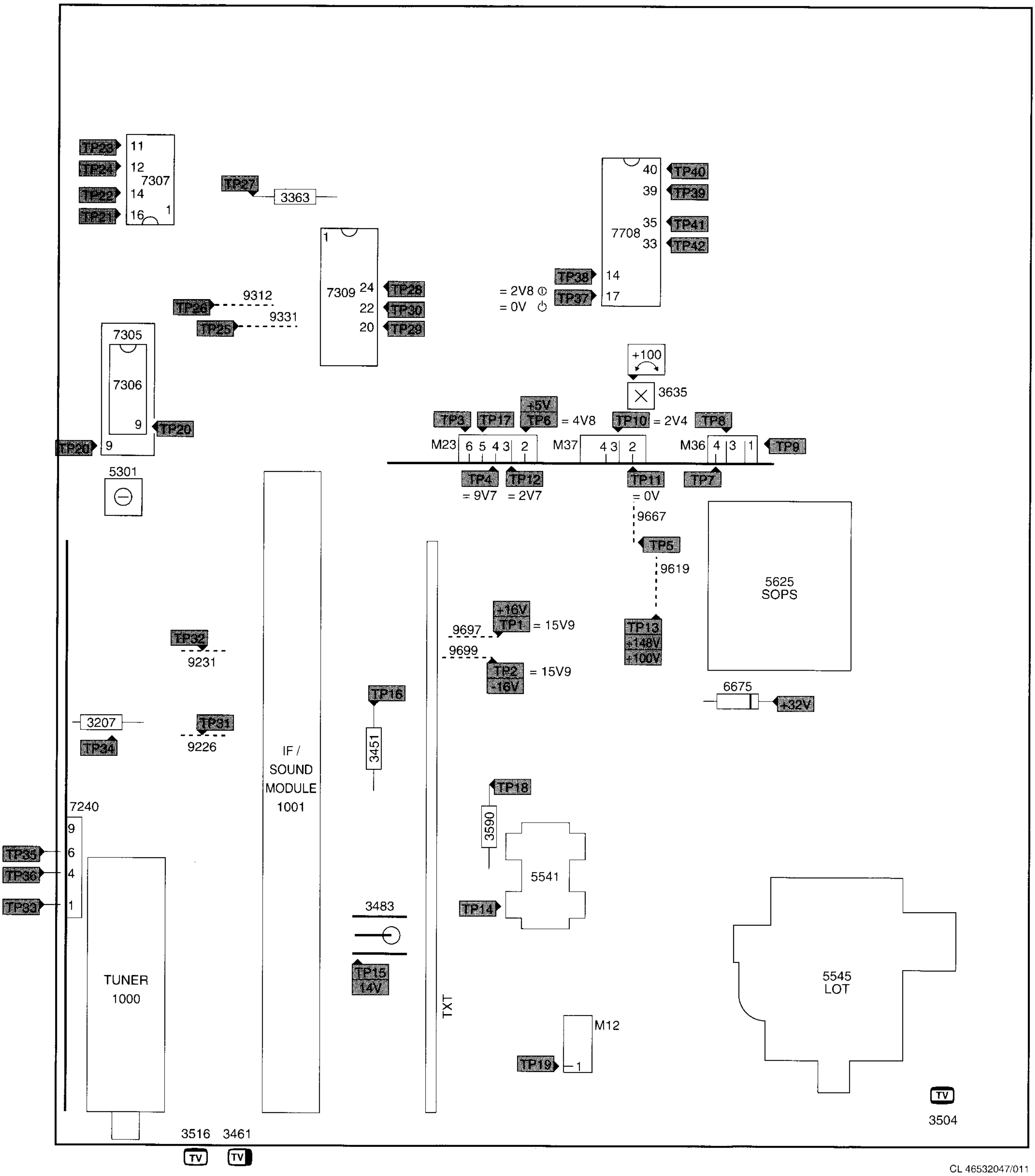
200mV/div AC
0.5ms div

TP36



200mV/div AC
0.5ms div

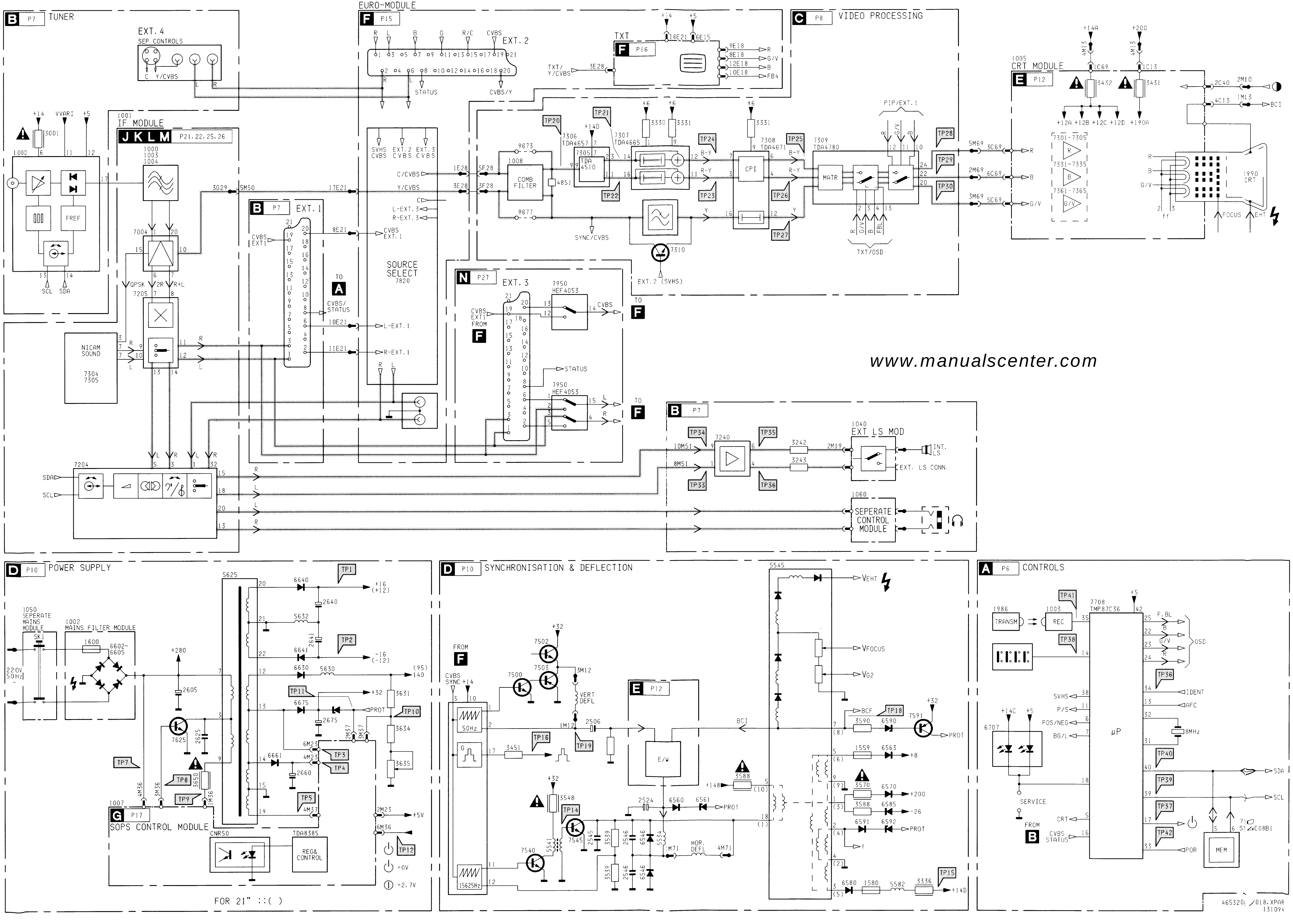
Test point overview/Übersicht Teststellen/Tableau des points à tester


TP23
TP24
TP22
TP21
11
12
14
16
1
7307
TP27
3363
1
7309
24
22
20
TP28
TP30
TP29
9312
9331
TP26
TP25
7305
7306
9
TP20
TP20
9
5301
40
39
35
33
14
17
7708
TP40
TP39
TP41
TP42
TP38
TP37
= 2V8
= 0V
+100
3635
+5V
TP6
= 4V8
TP3
TP17
TP10
= 2V4
TP8
M23
6
5
4
3
2
M37
4
3
2
M36
4
3
1
TP9
TP4
TP12
= 9V7
= 2V7
TP11
= 0V
TP7
9667
TP5
9619
5625
SOPS
+16V
TP1
= 15V9
9697
9699
TP2
-16V
= 15V9
TP13
+148V
+100V
6675
+32V
TP32
9231
TP31
9226
3207
TP34
TP16
3451
IF /
SOUND
MODULE
1001
TP18
3590
5541
TP14
7240
9
6
4
1
TP35
TP36
TP33
3483
TP15
14V
TUNER
1000
TXT
M12
TP19
1
5545
LOT
TV
3504
3516
3461
TV
TV

CL 46532047/011
181094

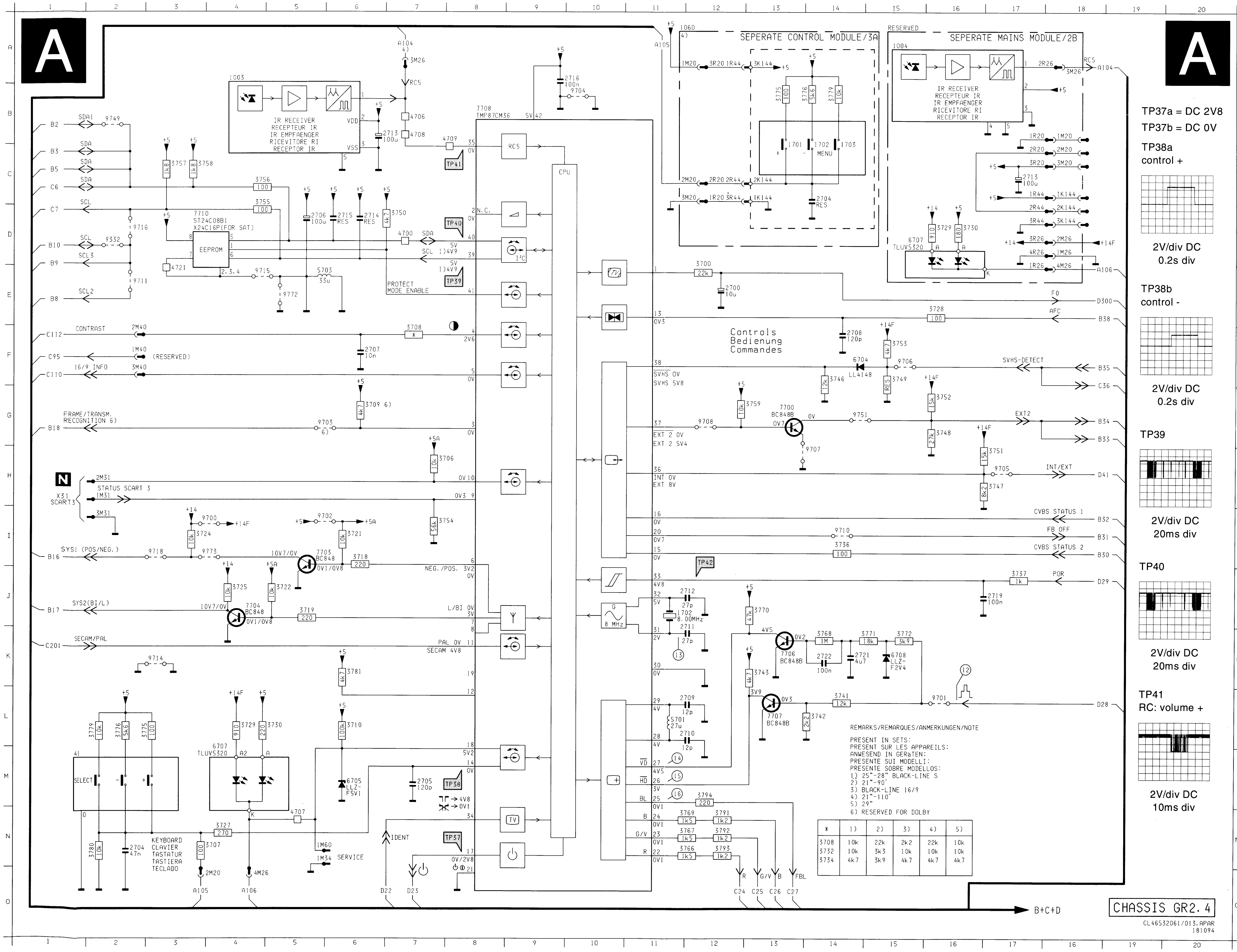
Block diagram/Blockschaltbild/Schéma-bloc

CHASSIS GR 2.4 **5**



B P7 TUNER
EXT. 4
SEP. CONTROLS
C Y/CVBS
1001 IF MODULE
J K L M P21,22,25,26
1000 1003 1004
7004
7205
NICAM SOUND
7304 7305
7204
SDA
SCL
1006 EURO-MODULE
F P15
R L B G R/C CVBS
EXT. 2
STATUS
CVBS/Y
SVHS CVBS
EXT. 2 CVBS
EXT. 3 CVBS
C/CVBS
Y/CVBS
L-EXT. 3
R-EXT. 3
SOURCE SELECT 7820
CVBS EXT. 1
L-EXT. 1
R-EXT. 1
B P7 EXT. 1
TO A
CVBS/STATUS
N P27 EXT. 3
7950 HEF4053
CVBS EXT1 FROM F
TO F
TXT
F P16
TXT/Y/CVBS
C P8 VIDEO PROCESSING
COMB FILTER
7306 TDA4657
7307 TDA4665
7305 TDA4510
7308 TDA4671
7309 TDA4780
CPI
MATR
PIP/EXT. 1
SYNC/CVBS
7310
EXT. 2 (SVHS)
TXT/OSD
1005 CRT MODULE
E P12
1990 CRT
FOCUS
EHT
B P7
7240
1040 EXT LS MOD
INT. LS
EXT. LS CONN.
1060 SEPERATE CONTROL MODULE
D P10 POWER SUPPLY
1050 SEPERATE MAINS MODULE
1002 MAINS FILTER MODULE
220V 50Hz
5625
1007
G P17 SOPS CONTROL MODULE
CNR50
TDA8385 REG& CONTROL
FOR 21" ::( )
D P10 SYNCHRONISATION & DEFLECTION
FROM F
CVBS SYNC
50Hz
15625Hz
VERT DEFL
HOR. DEFL
E/W
E P12
5545
VEHT
VFOCUS
VG2
BCF
BCI
PROT
A P6 CONTROLS
1986 TRANSM
1003 REC
7708 TMP87C36
µP
OSD
SERVICE
FROM B
CVBS STATUS
IDENT
AFC
8MHz
SDA
SCL
POR
MEM
465320 018.XPAR 131094

Controls/Bedienung/Commandes


A
SEPERATE CONTROL MODULE/3A
RESERVED
SEPERATE MAINS MODULE/2B
IR RECEIVER
RECEPTEUR IR
IR EMPFAENGER
RICEVITORE RI
RECEPTOR IR
7708
IMP87CM36
CPU
7710
ST24C08B1
X24C16P(FOR SAT)
EEPROM
PROTECT MODE ENABLE
CONTRAST
(RESERVED)
16/9 INFO
FRAME/TRANSM. RECOGNITION 6)
STATUS SCART 3
X31 SCART3
SYS1 (POS/NEG.)
SYS2(BI/L)
SECAM/PAL
NEG./POS.
L/BI
PAL
SECAM
Controls
Bedienung
Commandes
SVHS-DETECT
EXT2
INT/EXT
CVBS STATUS 1
FB OFF
CVBS STATUS 2
POR
AFC
8 MHz
KEYBOARD
CLAVIER
TASTATUR
TASTIERA
TECLADO
SELECT
MENU
SERVICE
IDENT
TP37
TP38
TP39
TP40
TP41
TP42
B+C+D
TP37a = DC 2V8
TP37b = DC 0V
TP38a
control +
2V/div DC
0.2s div
TP38b
control -
2V/div DC
0.2s div
TP39
2V/div DC
20ms div
TP40
2V/div DC
20ms div
TP41
RC: volume +
2V/div DC
10ms div
CHASSIS GR2.4
CL46532061/013.APAR
181094

REMARKS/REMARQUES/ANMERKUNGEN/NOTE

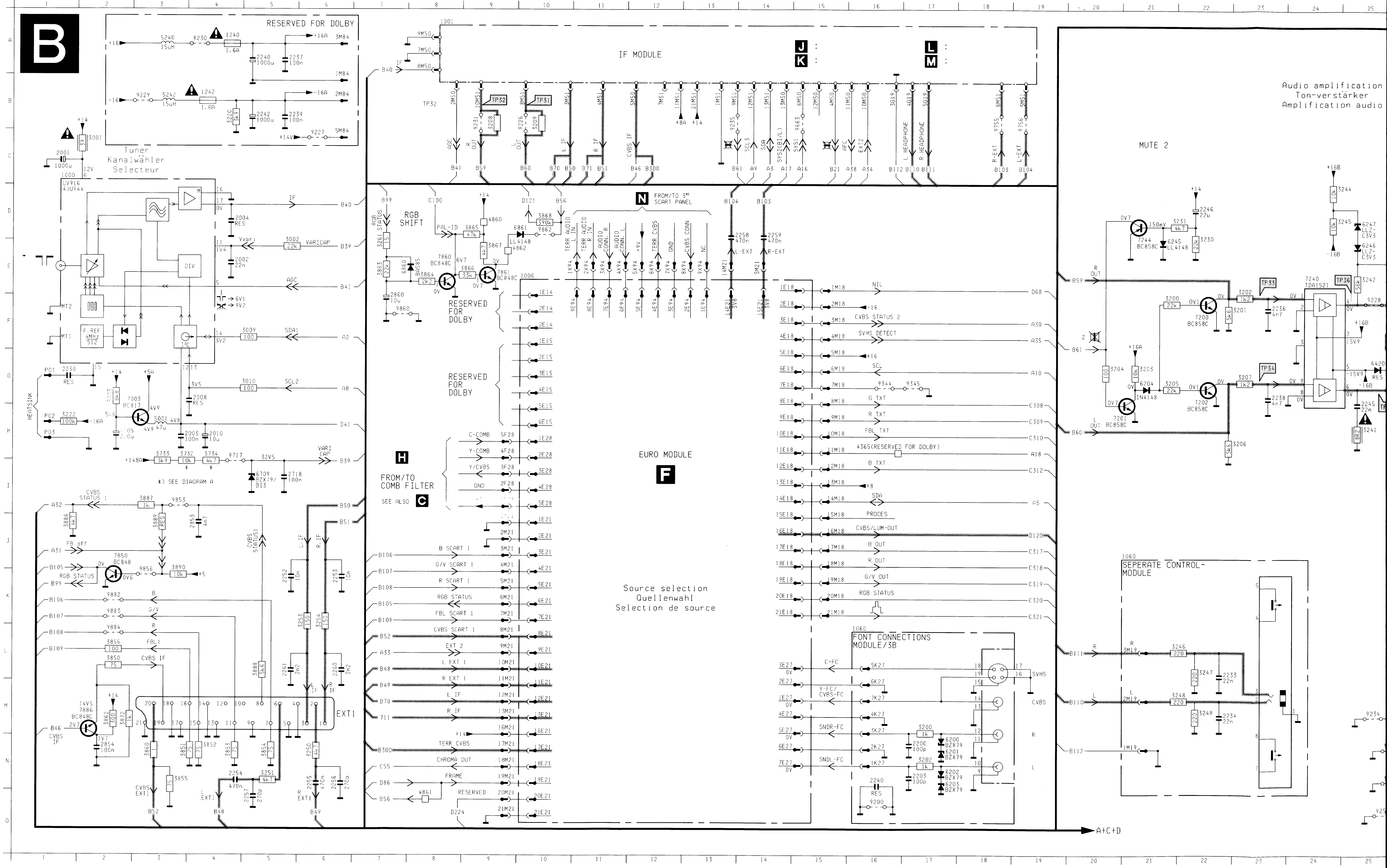
PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERäTEN:
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:
1) 25"-28" BLACK-LINE S
2) 21"-90°
3) BLACK-LINE 16/9
4) 21"-110°
5) 29"
6) RESERVED FOR DOLBY

*	1)	2)	3)	4)	5)
3708	10k	22k	2k2	22k	10k
3732	10k	3k3	10k	10k	10k
3734	4k7	3k9	4k7	4k7	4k7

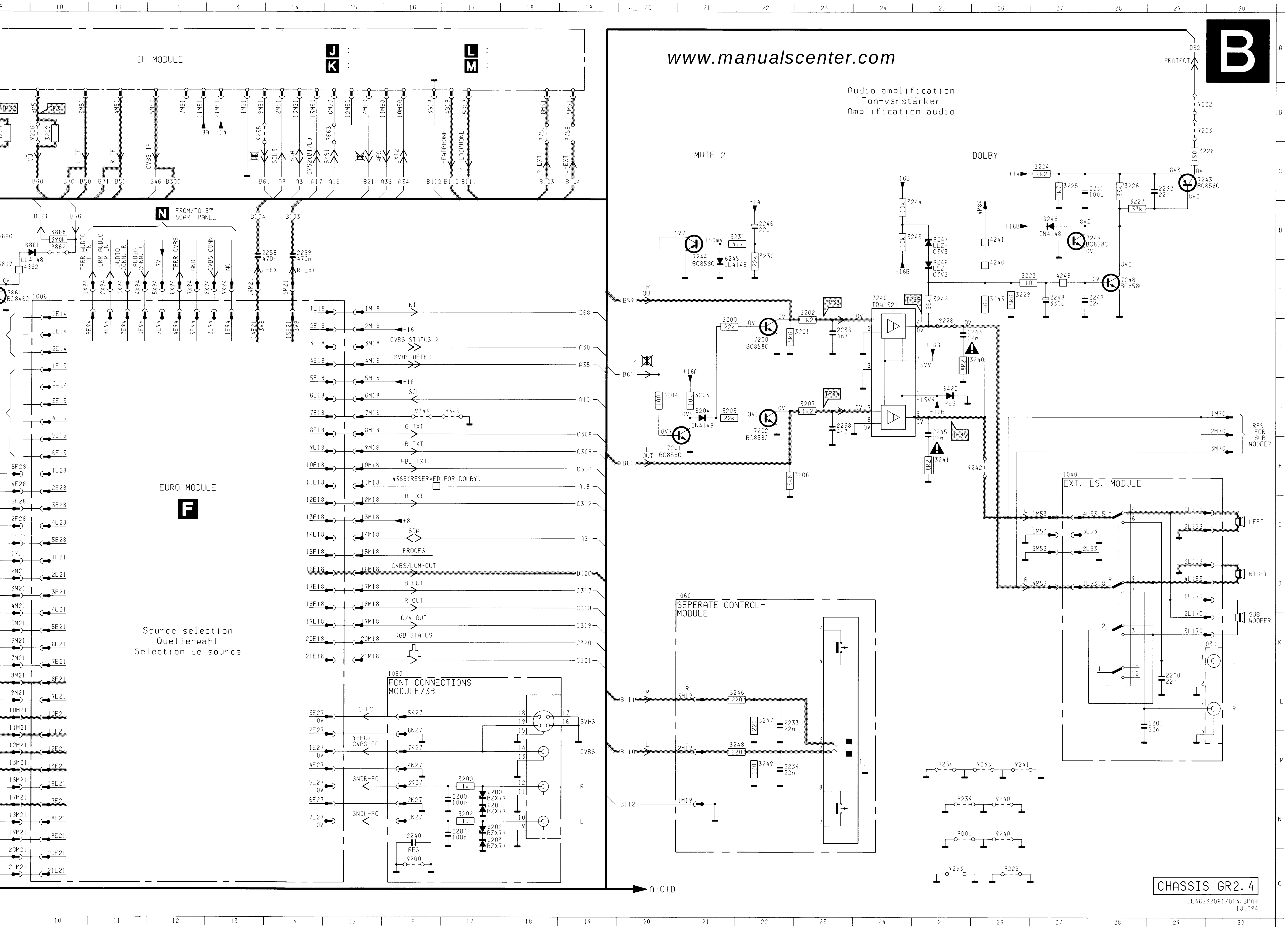
1003	A 4
1004	A15
1060	A11
1701	B13
1702	B14
1702	J11
1703	B14
2700	E12
2704	C14
2704	N 2
2705	M 7
2706	D 5
2707	F 6
2708	F14
2709	L12
2710	L12
2711	K12
2712	J12
2713	B 6
2713	C17
2714	D 6
2715	D 6
2716	A 9
2719	J17
2721	K14
2722	K14
3700	E12
3706	H 7
3707	N 3
3708	F 7
3709	G 6
3710	L 6
3718	I 6
3719	J 5
3721	I 6
3722	J 5
3724	I 3
3725	J 4
3727	N 4
3728	E16
3729	D16
3729	L 4
3730	D16
3730	L 5
3736	I14
3737	J17
3741	L14
3742	L14
3743	K13
3746	F14
3747	H17
3748	G16
3749	F15
3749	F15
3750	D 7
3751	H17
3752	G16
3753	F15
3754	I 7
3755	D 4
3756	C 4
3757	C 3
3758	C 3
3759	G13
3766	N12
3767	N12
3768	K14
3769	N12
3770	J13
3771	K15
3772	K15
3775	B13
3775	L 3
3776	B14
3776	L 2
3779	B14
3779	L 2
3780	N 2
3781	K 6
3791	N12
3792	N12
3793	N12
3794	M12
41	M 1
4700	D 7
4706	B 7
4707	N 5
4708	B 7
4709	B 8
4721	E 3
5701	L11
5703	E 5
6704	F14
6705	M 6
6707	D15
6707	M 4
6708	K15
7700	G13
7703	I 5
7704	J 4
7706	K13
7707	L13
7708	B 8
7710	D 3
9332	D 2
9700	I 4
9701	L16
9702	I 5
9703	G 5
9704	B10
9705	H17
9706	F15
9707	H14
9708	G12
9710	I14
9711	E 2
9714	K 3
9715	E 4
9716	D 2
9718	I 3
9749	B 2
9751	G14
9772	E 5
9773	I 4

Tuner/Kanalwähler/Sélecteur

CHASSIS GR 2.4 **7** **IF/ZF/FI** *www.manualscenter.com*

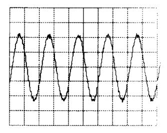

B
RESERVED FOR DOLBY
Tuner
Kanalwähler
Selecteur
UV916
41U944
IF MODULE
J
K
L
M
N
FROM/TO 3RD SCART PANEL
RGB SHIFT
RESERVED FOR DOLBY
RESERVED FOR DOLBY
H
FROM/TO COMB FILTER
SEE ALSO C
EURO MODULE
F
Source selection
Quellenwahl
Selection de source
1060
FONT CONNECTIONS MODULE/3B
1060
SEPERATE CONTROL-MODULE
Audio amplification
Ton-verstärker
Amplification audio
MUTE 2
7240
TDA1521
EXT1
HEATSINK
*) SEE DIAGRAM A
A+C+D

IF/ZF/FI


IF MODULE
J :
K :
L :
M :
www.manualscenter.com
B
Audio amplification
Ton-verstärker
Amplification audio
MUTE 2
DOLBY
PROTECT
TP31
TP32
TP33
TP34
TP35
TP36
L OUT
L IF
R IF
CVBS IF
L HEADPHONE
R HEADPHONE
R-EXT
L-EXT
SCL3
SDA
SYS2(B/L)
SYS1
AFC
EXT2
N
FROM/TO 3RD SCART PANEL
TERR AUDIO L IN
TERR AUDIO R IN
AUDIO CONN. R
AUDIO CONN. L
+9V
TERR CVBS
GND
CVBS CONN
NC
L-EXT
R-EXT
EURO MODULE
F
Source selection
Quellenwahl
Selection de source
NIL
CVBS STATUS 2
SVHS DETECT
SCL
G TXT
R TXT
FBL TXT
4365(RESERVED FOR DOLBY)
B TXT
SDA
PROCES
CVBS/LUM-OUT
B OUT
R OUT
G/V OUT
RGB STATUS
1060
FONT CONNECTIONS MODULE/3B
C-FC
Y-FC/CVBS-FC
SNDR-FC
SNDL-FC
SVHS
CVBS
R
L
R OUT
L OUT
7240 TDA1521
7243 BC858C
7244 BC858C
7248 BC858C
7249 BC858C
7200 BC858C
7201 BC858C
7202 BC858C
1040
EXT. LS. MODULE
LEFT
RIGHT
SUB WOOFER
RES. FOR SUB WOOFER
1060
SEPERATE CONTROL-MODULE
A+C+D
CHASSIS GR2.4
CL46532061/014.BPAR
181094

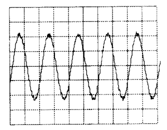
1000	C 1
1001	A 8
1006	E10
1040	H27
1060	J20
1060	L16
1240	A 4
1242	B 4
2001	C 1
2002	E 4
2003	H 3
2004	D 4
2005	H 2
2008	G 4
2010	H 4
2200	L29
2200	N17
2201	L29
2203	N17
2230	G 1
2231	C28
2232	C29
2233	L22
2234	M22
2236	F23
2237	A 5
2238	G23
2239	B 5
2240	A 5
2240	N16
2242	B 5
2243	F25
2245	G25
2246	D22
2248	E27
2249	E28
2252	K 5
2253	K 6
2254	N 4
2255	N 6
2256	N 6
2257	O 5
2258	D13
2259	D14
2260	L 6
2261	L 5
2718	I 5
2853	J 4
2854	N 2
2860	F 7
3001	C 2
3002	E 5
3003	G 2
3009	F 5
3010	G 5
3200	F21
3200	M17
3201	F23
3202	E23
3202	N17
3203	G21
3204	G20
3205	G21
3206	H23
3207	G23
3208	B 9
3209	B10
3220	B 4
3222	H 1
3223	E26
3224	C27
3225	C27
3226	C28
3227	D28
3228	C29
3229	E26
3230	D22
3231	D22
3240	F25
3241	H25
3242	E25
3243	E26
3244	C24
3245	D24
3246	L22
3247	L22
3248	M22
3249	M22
3250	N 6
3251	N 5
3253	K 6
3254	K 6
3261	E 7
3732	H 3
3733	H 3
3734	H 4
3850	L 2
3851	N 3
3852	N 4
3853	N 4
3854	N 5
3855	N 3
3856	L 2
3860	N 3
3862	M 2
3863	E 7
3864	E 8
3865	D 9
3866	E 9
3867	E 9
3868	D10
3872	M 2
3886	J 1
3887	I 3
3888	L 5
3889	J 3
3890	K 3
4240	E26
4241	D26
4248	E27
4365	H *
4860	D 9
4861	O 8
4862	E 9
5001	H 3
5240	A 3
5242	B 3
6200	N17
6201	N17
6202	N17
6203	N17
6204	G21
6245	E21
6246	E25
6247	D25
6248	D27
6420	G25
6709	I 5
6860	E 7
6861	D10
7003	G 3
7200	F22
7201	H21
7202	G22
7240	E24
7243	C29
7244	D21
7248	E28
7249	D27
7850	J 2
7860	E 8
7861	E 9
7886	M 2
9001	N25
9200	O16
9222	B29
9223	B29
9225	O26
9226	B10
9227	C 6
9228	F25
9229	B 3
9230	A 4
9231	B 9
9233	M26
9234	M25
9235	B13
9239	N25
9240	N26
9240	N26
9241	M26
9242	H26
9253	O25
9344	G16
9345	G17
9663	B15
9717	H 4
9755	B18
9756	B19
9853	I 3
9856	K 3
9860	F 7
9862	D10
9882	K 2
9883	K 2
9884	L 2

* TP31



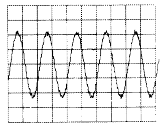
10mV/div AC
0.5ms div

* TP32



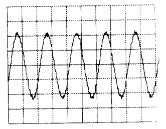
10mV/div AC
0.5ms div

* TP33



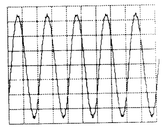
10mV/div AC
0.5ms div

* TP34



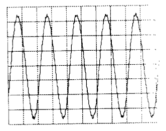
10mV/div AC
0.5ms div

* TP35



200mV/div AC
0.5ms div

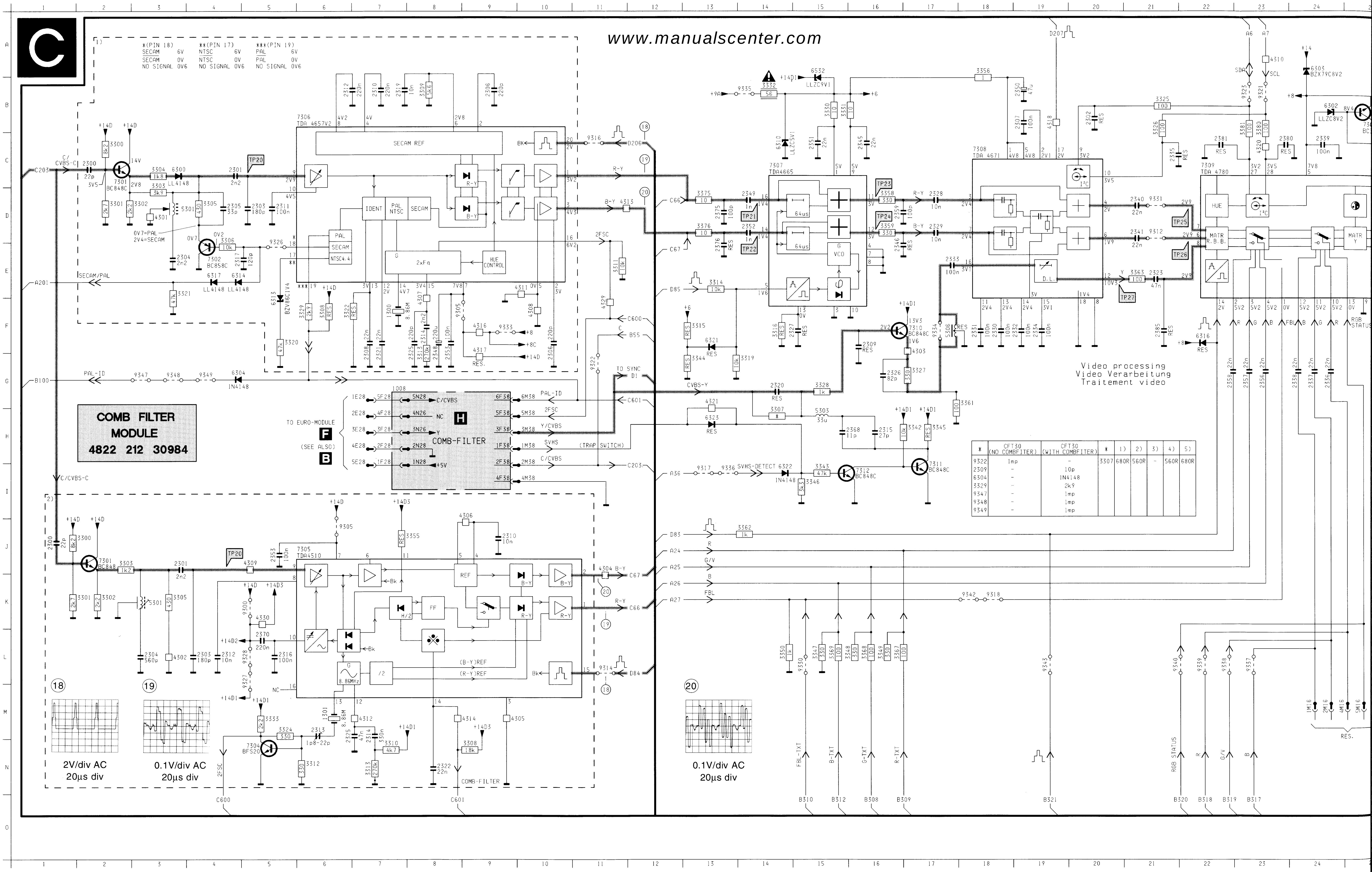
* TP36



200mV/div AC
0.5ms div

* measured at ⊿ = 50%

Video processing/Video Verarbeitung/ Traitement video

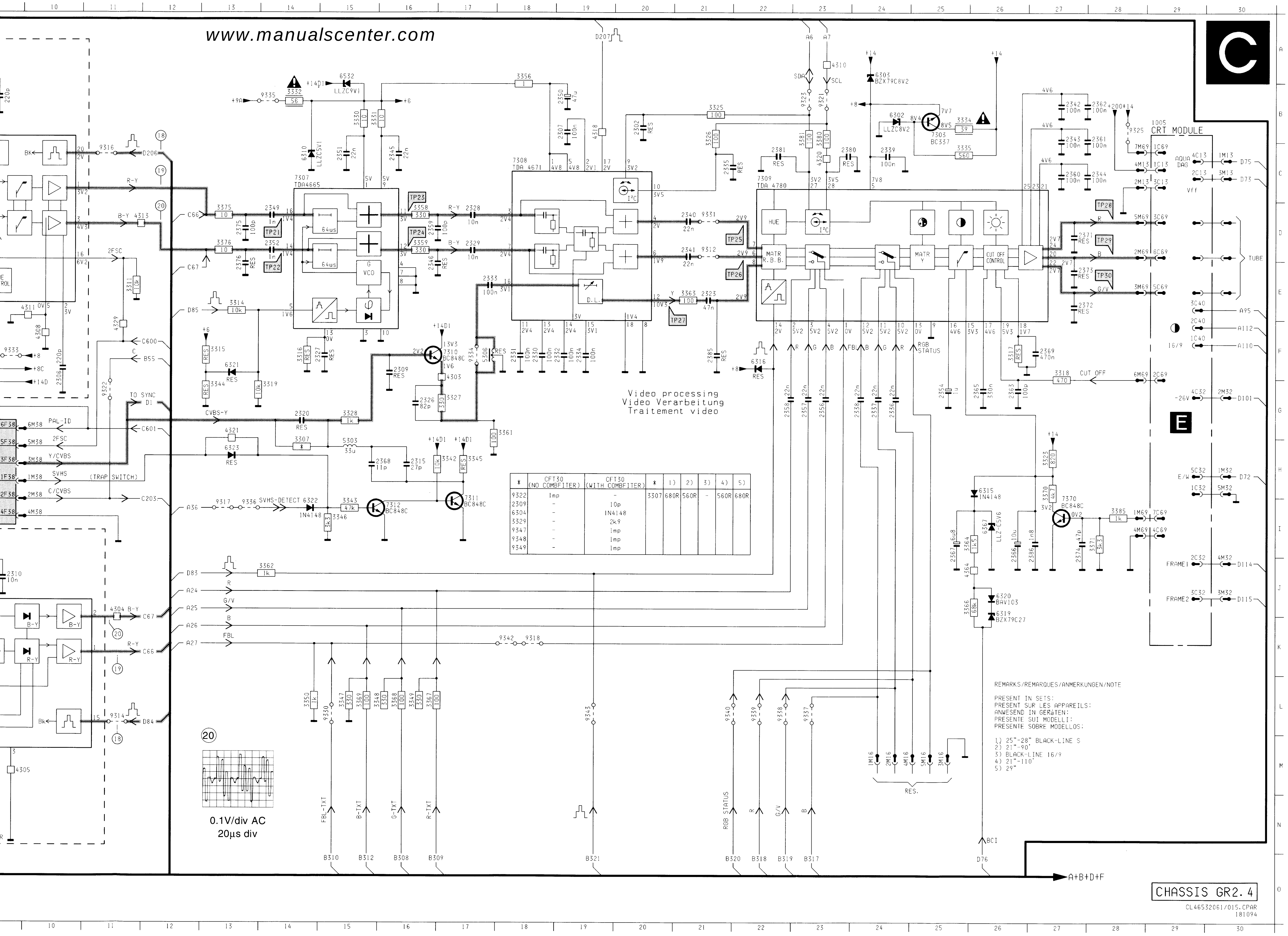

C
1)
2)
7306
TDA 4657V2
SECAM REF
IDENT
PAL NTSC
SECAM
2xFq
HUE CONTROL
7301
BC848C
7302
BC858C
0V7=PAL
2V4=SECAM
SECAM/PAL
PAL-ID
TP20
C/CVBS-C
C203
A201
B100
1008
COMB-FILTER
H
TO EURO-MODULE
F
(SEE ALSO)
B
COMB FILTER
MODULE
4822 212 30984
C/CVBS
NC
Y
+5V
PAL-ID
2FSC
Y/CVBS
SVHS
(TRAP SWITCH)
C/CVBS
TO SYNC
7305
TDA4510
REF
FF
H/2
(B-Y)REF
(R-Y)REF
8.86MHz
/2
7304
BFS20
COMB-FILTER
C600
C601
C66
C67
D206
D84
7307
TDA4665
TP21
TP22
TP23
TP24
64us
VCO
7308
TDA 4671
D.L.
TP25
TP26
TP27
7309
TDA 4780
HUE
MATR R.B.B.
MATR Y
I²C
7310
BC848C
7311
BC848C
7312
BC848C
SVHS-DETECT
CVBS-Y
D85
D83
A24
A25
A26
A27
A36
B55
R
G/V
B
FBL
SDA
SCL
D207
A6
A7
RES.
FBL-TXT
B-TXT
G-TXT
R-TXT
RGB STATUS
B310
B312
B308
B309
B321
B320
B318
B319
B317
(18)
(19)
(20)
2V/div AC
20µs div
0.1V/div AC
20µs div
0.1V/div AC
20µs div

*(PIN 18)		**(PIN 17)		***(PIN 19)	
SECAM	6V	NTSC	6V	PAL	6V
SECAM	0V	NTSC	0V	PAL	0V
NO SIGNAL	0V6	NO SIGNAL	0V6	NO SIGNAL	0V6

Video processing
Video Verarbeitung
Traitement video

*	CFT30 (NO COMBFITER)	CFT30 (WITH COMBFITER)	*	1)	2)	3)	4)	5)
9322	1mp	-	3307	680R	560R	-	560R	680R
2309	-	10p						
6304	-	1N4148						
3329	-	2k9						
9347	-	1mp						
9348	-	1mp						
9349	-	1mp						

Traitement video


C
E
Video processing
Video Verarbeitung
Traitement video
7307 TDA4665
7308 TDA 4671
7309 TDA 4780
1005 CRT MODULE
TUBE
AQUA DAG
TP20
TP21
TP22
TP23
TP24
TP25
TP26
TP27
TP28
TP29
TP30
HUE
MATR R.B.B.
MATR Y
CUT OFF CONTROL
RGB STATUS
FBL-TXT
B-TXT
G-TXT
R-TXT
RES.
(TRAP SWITCH)
SVHS-DETECT
FRAME1
FRAME2
+A+B+D+F
CHASSIS GR2.4
CL46532061/015.CPAR
181094

(20)

0.1V/div AC
20µs div

✱	CFT30 (NO COMBFITER)	CFT30 (WITH COMBFITER)	✱	1)	2)	3)	4)	5)
9322	1mp	-	3307	680R	560R	-	560R	680R
2309	-	10p						
6304	-	1N4148						
3329	-	2k9						
9347	-	1mp						
9348	-	1mp						
9349	-	1mp						

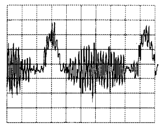
REMARKS/REMARQUES/ANMERKUNGEN/NOTE

PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERäTEN:
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:

1) 25"-28" BLACK-LINE S
2) 21"-90°
3) BLACK-LINE 16/9
4) 21"-110°
5) 29"

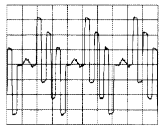
1005	B29	3319	G14	9328	L 5
1008	G 7	3320	F 5	9330	L15
1300	F 7	3321	E 3	9331	D21
1301	M 6	3322	F 6	9333	F 9
2300	C 2	3323	H27	9334	F17
2300	J 1	3324	M 5	9335	B14
2301	C 4	3325	B21	9336	I13
2301	J 3	3326	B21	9337	L23
2302	B20	3327	G17	9338	L22
2303	D 5	3328	G15	9339	L22
2303	L 4	3329	F 6	9340	L21
2304	E 3	3330	B15	9342	K18
2304	L 3	3331	B15	9343	L19
2305	D 4	3332	B14	9347	G 3
2306	B 9	3333	M 5	9348	G 3
2306	F10	3334	B25	9349	G 4
2307	B19	3335	C25		
2308	F 7	3342	H17		
2309	F16	3343	I15		
2310	B 7	3344	G13		
2310	J 9	3345	H17		
2311	D 5	3346	I15		
2312	B 6	3347	L15		
2312	L 4	3348	L16		
2313	M 6	3349	L16		
2314	F 8	3350	L14		
2314	M 7	3355	J 7		
2315	H16	3356	A18		
2316	L 5	3358	D16		
2317	E 4	3359	D16		
2319	B 7	3361	G18		
2320	G14	3362	J14		
2321	F 7	3363	E21		
2322	N 8	3364	I26		
2323	E21	3366	J26		
2325	F 8	3367	L16		
2325	M 6	3368	L16		
2326	G16	3369	L15		
2327	F15	3370	H27		
2328	D17	3371	I28		
2329	D17	3375	D13		
2330	F18	3376	D13		
2331	F18	3380	B23		
2332	F19	3381	B23		
2333	E17	3385	I28		
2334	F19	4301	D 3		
2335	C21	4302	L 3		
2336	G24	4303	F17		
2337	G24	4304	J11		
2338	G24	4305	M 9		
2339	C24	4306	I 9		
2340	D21	4307	F 8		
2341	D21	4308	F10		
2342	B27	4309	J 5		
2343	B27	4310	A23		
2344	C28	4311	E10		
2345	C16	4312	M 7		
2346	E16	4313	D11		
2348	F 8	4314	M 8		
2349	D14	4316	F 9		
2350	B19	4317	F 9		
2351	C15	4318	B19		
2352	D14	4320	C23		
2353	F 8	4321	G13		
2353	J 5	4329	F11		
2354	G25	4330	K 5		
2356	G23	4364	J26		
2357	G23	5301	D 3		
2358	G22	5301	K 3		
2359	D16	5303	H15		
2360	C27	5306	F17		
2361	B28	6300	C 3		
2362	B28	6302	B24		
2363	G26	6303	A24		
2365	G26	6304	G 4		
2366	I26	6310	C14		
2367	I25	6313	F 5		
2368	H15	6314	E 4		
2369	F27	6315	H26		
2370	L 5	6316	F22		
2371	D27	6317	E 4		
2372	E27	6319	J26		
2373	E27	6320	J26		
2374	I27	6321	F13		
2375	D13	6322	I14		
2376	E13	6323	H13		
2380	C23	6367	I26		
2381	C22	6532	A15		
2385	F21	7301	C 2		
2386	I27	7301	J 2		
3300	C 2	7302	E 4		
3300	J 2	7303	B25		
3301	D 2	7304	N 5		
3301	K 2	7305	J 5		
3302	D 3	7306	B 5		
3302	K 2	7307	C14		
3303	D 3	7308	C18		
3303	J 2	7309	C22		
3304	C 3	7310	F17		
3305	D 4	7311	I17		
3305	K 3	7312	I16		
3306	E 4	7370	I27		
3307	H14	9300	K 5		
3308	F 6	9305	F 8		
3308	N 9	9305	J 6		
3309	B 8	9312	D21		
3310	N 7	9314	L11		
3311	E11	9316	C11		
3312	N 6	9317	I13		
3313	G 8	9318	K18		
3313	N 7	9321	B23		
3314	E13	9322	G11		
3315	F13	9323	B23		
3316	F14	9325	B28		
3317	F26	9326	E 5		
3318	F27	9327	L 5		

TP20



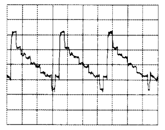
20mV/div AC
10µs div

TP26



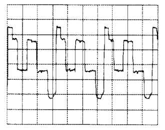
0.2V/div AC
20µs div

TP27



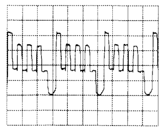
0.1V/div AC
20µs div

TP28



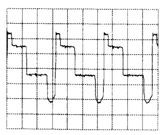
0.5V/div AC
20µs div

TP29



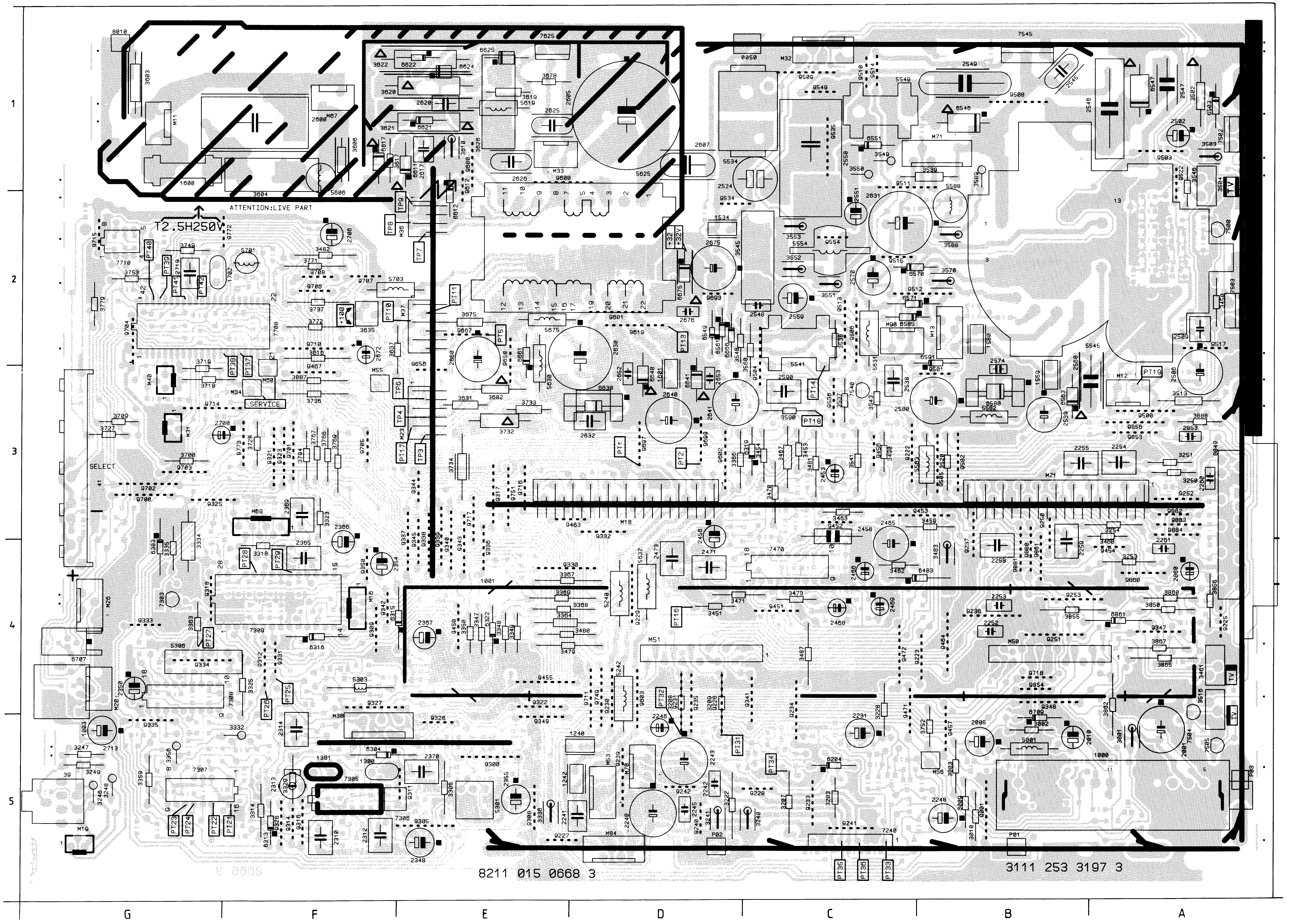
0.5V/div AC
20µs div

TP30

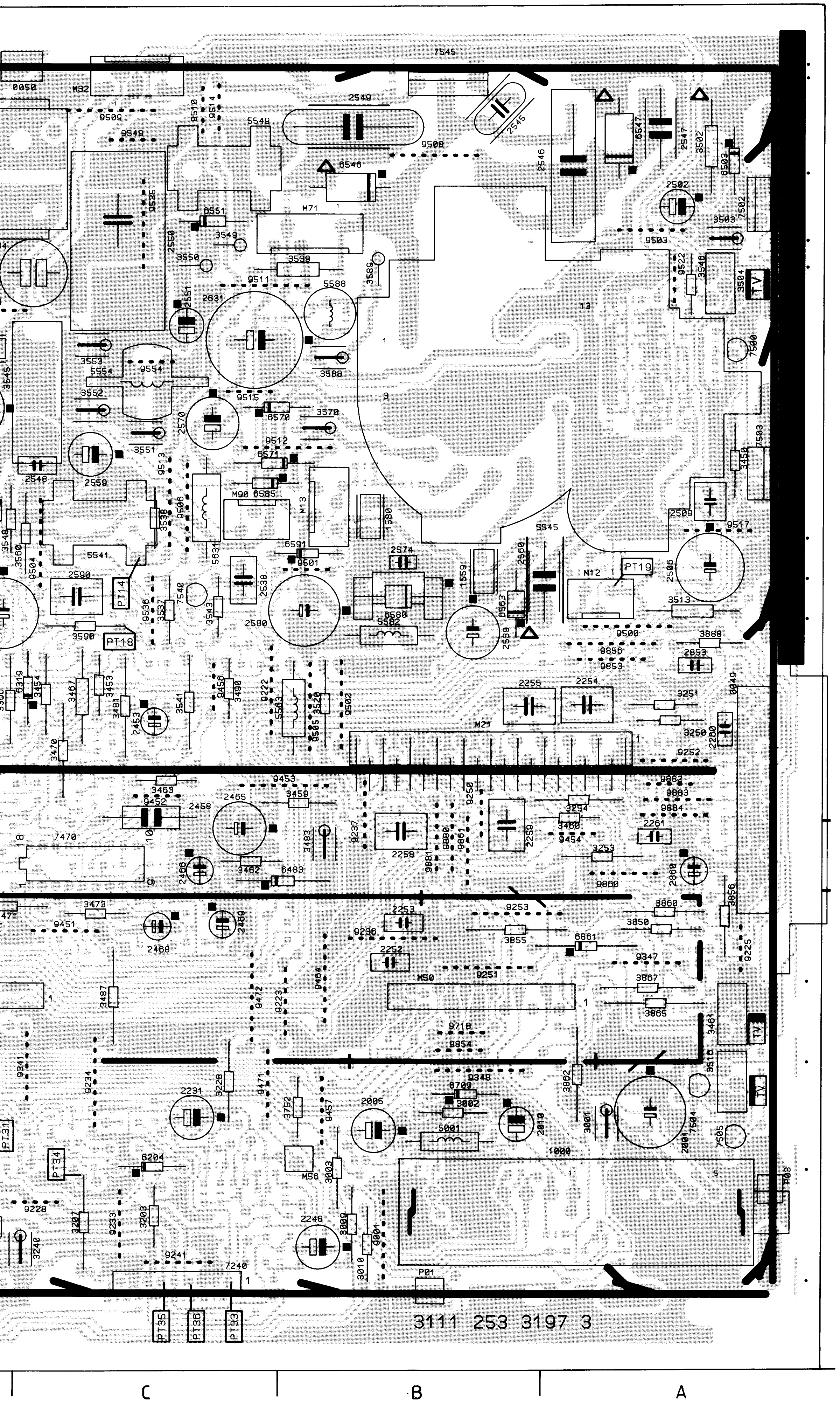


0.5V/div AC
20µs div

Mono carrier / Hauptplatine / Châssis



0049	A3	3323	F3
0050	C1	3325	F4
1000	A5	3329	F5
1003	G4	3332	F5
1240	D5	3334	G4
1242	D5	3335	G4
1300	F5	3336	E5
1301	F5	3347	E4
1534	D2	3348	E4
1559	B3	3349	E4
1580	B2	3350	E4
1600	G1	3356	G5
1601	D3	3359	G5
1702	G2	3363	G4
2001	A5	3364	D4
2005	B5	3366	C3
2010	B5	3367	D4
2231	C5	3368	E4
2240	D5	3369	E4
2241	D5	3450	A2
2242	D5	3451	D4
2243	D5	3453	C3
2245	D5	3454	C3
2246	D5	3459	B3
2248	B5	3460	A3
2252	B4	3461	A4
2253	B4	3462	C4
2254	A3	3463	C3
2255	B3	3467	C3
2258	B4	3470	C3
2259	B4	3471	C4
2260	A3	3473	C4
2261	A4	3479	D4
2310	F5	3480	D4
2312	F5	3481	C3
2313	F5	3482	F2
2314	F5	3483	B4
2348	E5	3487	C4
2350	G4	3490	C3
2354	F4	3502	A1
2355	E5	3503	A1
2365	F4	3504	A1
2366	F4	3513	A3
2367	E4	3516	A4
2369	F3	3520	B3
2370	E5	3537	C3
2453	C3	3538	C2
2456	D4	3539	B1
2458	C4	3541	C3
2465	C4	3543	C3
2466	C4	3545	C2
2468	C4	3546	A1
2469	C4	3548	C2
2471	D4	3549	C1
2473	D4	3550	C1
2502	A1	3551	C2
2506	A3	3552	C2
2509	A2	3553	C2
2524	C1	3560	C2
2538	C3	3570	B2
2539	B3	3588	B2
2545	B1	3589	B1
2546	A1	3590	C3
2547	A1	3603	G1
2548	C2	3604	F1
2549	B1	3606	F1
2550	C1	3610	E1
2551	C2	3616	F2
2559	C2	3617	F1
2560	A3	3619	E1
2570	C2	3620	E1
2574	B3	3621	E1
2580	B3	3622	E1
2590	C3	3626	E1
2600	F1	3631	E3
2605	D1	3635	F2
2607	D1	3637	E2
2617	E1	3675	E2
2620	E1	3678	E1
2625	E1	3682	E3
2626	E1	3700	G3
2630	D3	3709	G3
2631	C2	3718	G3
2632	D3	3719	G3
2640	D3	3727	G3
2641	D3	3728	F3
2652	D3	3732	E3
2653	D3	3733	E3
2660	E3	3734	E3
2672	F2	3736	F3
2675	D2	3737	F2
2676	D2	3749	G2
2700	F3	3752	B5
2706	F2	3753	G2
2713	G5	3766	F3
2719	G2	3767	F3
2853	A3	3769	F3
2860	A4	3771	F2
3001	A5	3772	F2
3002	B5	3779	G2
3003	B5	3794	F3
3009	B5	3850	A4
3010	B5	3855	B4
3203	C5	3856	A4
3207	C5	3860	A4
3208	D4	3862	A4
3209	D4	3865	A4
3222	D5	3867	A4
3228	C4	3887	F3
3240	C5	3888	A3
3241	D5	5001	B5
3246	G5	5240	D4
3247	G5	5242	D4
3248	G5	5301	E5
3249	G5	5303	F4
3250	A3	5306	G4
3251	A3	5534	D1
3253	A4	5541	C2
3254	A3	5545	B2
3306	E5	5549	C1
3314	F5	5554	C2
3318	F4	5563	B3

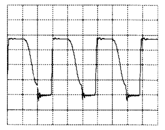


0049	A3
0050	C1
1000	A5
1003	G4
1240	D5
1242	D5
1300	F5
1301	F5
1534	D2
1559	B3
1580	B2
1600	G1
1601	D3
1702	G2
2001	A5
2005	B5
2010	B5
2231	C5
2240	D5
2241	D5
2242	D5
2243	D5
2245	D5
2246	D5
2248	B5
2252	B4
2253	B4
2254	A3
2255	B3
2258	B4
2259	B4
2260	A3
2261	A4
2310	F5
2312	F5
2313	F5
2314	F5
2348	E5
2350	G4
2354	F4
2355	E5
2365	F4
2366	F4
2367	E4
2369	F3
2370	E5
2453	C3
2456	D4
2458	C4
2465	C4
2466	C4
2468	C4
2469	C4
2471	D4
2473	D4
2502	A1
2506	A3
2509	A2
2524	C1
2538	C3
2539	B3
2545	B1
2546	A1
2547	A1
2548	C2
2549	B1
2550	C1
2551	C2
2559	C2
2560	A3
2570	C2
2574	B3
2580	B3
2590	C3
2600	F1
2605	D1
2607	D1
2617	E1
2620	E1
2625	E1
2626	E1
2630	D3
2631	C2
2632	D3
2640	D3
2641	D3
2652	D3
2653	D3
2660	E3
2672	F2
2675	D2
2676	D2
2700	F3
2706	F2
2713	G5
2719	G2
2853	A3
2860	A4
3001	A5
3002	B5
3003	B5
3009	B5
3010	B5
3203	C5
3207	C5
3208	D4
3209	D4
3222	D5
3228	C4
3240	C5
3241	D5
3246	G5
3247	G5
3248	G5
3249	G5
3250	A3
3251	A3
3253	A4
3254	A3
3306	E5
3314	F5
3318	F4
3323	F3
3325	F4
3329	F5
3332	F5
3334	G4
3335	G4
3336	E5
3347	E4
3348	E4
3349	E4
3350	E4
3356	G5
3359	G5
3363	G4
3364	D4
3366	C3
3367	D4
3368	E4
3369	E4
3450	A2
3451	D4
3453	C3
3454	C3
3459	B3
3460	A3
3461	A4
3462	C4
3463	C3
3467	C3
3470	C3
3471	C4
3473	C4
3479	D4
3480	D4
3481	C3
3482	F2
3483	B4
3487	C4
3490	C3
3502	A1
3503	A1
3504	A1
3513	A3
3516	A4
3520	B3
3537	C3
3538	C2
3539	B1
3541	C3
3543	C3
3545	C2
3546	A1
3548	C2
3549	C1
3550	C1
3551	C2
3552	C2
3553	C2
3560	C2
3570	B2
3588	B2
3589	B1
3590	C3
3603	G1
3604	F1
3606	F1
3610	E1
3616	F2
3617	F1
3619	E1
3620	E1
3621	E1
3622	E1
3626	E1
3631	E3
3635	F2
3637	E2
3675	E2
3678	E1
3682	E3
3700	G3
3709	G3
3718	G3
3719	G3
3727	G3
3728	F3
3732	E3
3733	E3
3734	E3
3736	F3
3737	F2
3749	G2
3752	B5
3753	G2
3766	F3
3767	F3
3769	F3
3771	F2
3772	F2
3779	G2
3794	F3
3850	A4
3855	B4
3856	A4
3860	A4
3862	A4
3865	A4
3867	A4
3887	F3
3888	A3
5001	B5
5240	D4
5242	D4
5301	E5
5303	F4
5306	G4
5534	D1
5541	C2
5545	B2
5549	C1
5554	C2
5563	B3
5582	B3
5588	B2
5606	F1
5619	E1
5625	D2
5630	E3
5631	C2
5632	D4
5675	E2
5701	F2
5703	E2
6204	C5
6303	G4
6304	F5
6313	F5
6315	E4
6316	F4
6319	C3
6322	E4
6483	B4
6503	A1
6546	B1
6547	A1
6549	D2
6551	C1
6561	D2
6563	B3
6570	B2
6571	B2
6580	B3
6585	C2
6591	B2
6611	E1
6612	E2
6617	F1
6621	E1
6622	E1
6624	E1
6625	E1
6630	D3
6640	D3
6641	D3
6661	E2
6666	D2
6675	D2
6707	G4
6709	B5
6861	A4
7240	C5
7303	G4
7305	F5
7306	F5
7307	F5
7308	G5
7309	F4
7470	C4
7500	A2
7502	A1
7503	A2
7504	A5
7505	A5
7540	C3
7545	B1
7625	E1
7708	G2
7710	G2
8010	G1
9001	B5
9222	C3
9223	B4
9225	A4
9226	D4
9227	E5
9228	C5
9229	D4
9230	D4
9231	D4
9233	C5
9234	C5
9235	D4
9236	B4
9237	B3
9239	D5
9240	D5
9241	C5
9242	D5
9250	B3
9251	B4
9252	A3
9253	B4
9300	E5
9305	E5
9308	E5
9309	F4
9311	E5
9312	F4
9314	F5
9316	F5
9317	E3
9318	G4
9321	F3
9322	E4
9323	F3
9325	G3
9326	F5
9327	F4
9328	E5
9330	D4
9331	F4
9332	D3
9333	G4
9334	G4
9335	G5
9336	E4
9337	E4
9338	E4
9339	E4
9340	E4
9341	C4
9342	F4
9343	E4
9344	E3
9345	E4
9347	A4
9348	B4
9349	E5
9350	F4
9450	E4
9451	C4
9452	C3
9453	B3
9454	A4
9455	E4
9456	C3
9457	B5
9463	D3
9464	B4
9467	F3
9471	C5
9472	C4
9500	A3
9501	B3
9502	B3
9503	A1
9504	C2
9505	B3
9506	C2
9508	B1
9509	C1
9510	C1
9511	C1
9512	B2
9513	C2
9514	C1
9515	C2
9517	A2
9522	A1
9534	D2
9535	C1
9536	C3
9549	C1
9554	C2
9600	E1
9601	D2
9602	D3
9603	D4
9612	E1
9619	D2
9656	E3
9658	E2
9667	E2
9680	E1
9693	D2
9697	D3
9699	D3
9700	G3
9701	F3
9702	G3
9703	G3
9704	G2
9705	F3
9706	F2
9707	F2
9708	F2
9710	F2
9711	D4
9714	G3
9715	G2
9716	E3
9717	E3
9718	B4
9749	D4
9751	E3
9772	F2
9773	F3
9853	A3
9854	B4
9856	A3
9860	A4
9861	B4
9880	B4
9881	B4
9882	A3
9883	A3
9884	A3
M11	G1
M12	A3
M13	B2
M16	F4
M18	D3
M19	G5
M20	G4
M21	B3
M23	E3
M26	G4
M31	G3
M32	C1
M33	E1
M34	F3
M36	E2
M37	E2
M38	E5
M40	G3
M50	B4
M51	D4
M53	D5
M55	F3
M56	B5
M60	F3
M67	F1
M69	F3
M70	D5
M71	B1
M84	D5
M90	C2
P01	B5
P02	D5
P03	A5

TP1 = DC 15V9

TP2 = DC -15V9

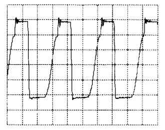
TP3



20V/div AC
5µs div

TP4 = DC 9V7

TP5

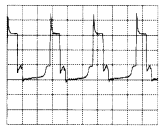


5V/div AC
5µs div

TP6 = DC 4V8

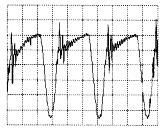
TP7 = DC 298V

TP8



2V/div AC
5µs div

TP9



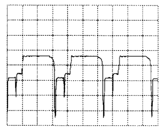
0.2V/div AC
5µs div

TP10 = DC 2V4

TP11 = DC 0V

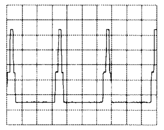
TP12 = DC 2V7

TP14



2V/div AC
20µs div

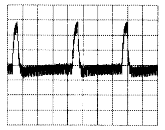
TP16



2V/div AC
20µs div

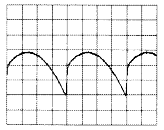
TP17 = DC 0V

TP18



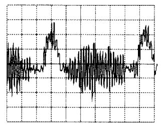
2V/div AC
5ms div

TP19



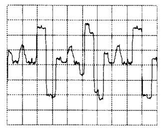
1V/div AC
5ms div

TP20



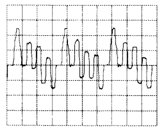
20mV/div AC
10µs div

TP21



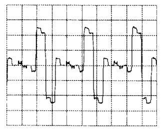
0.1V/div AC
20µs div

TP22



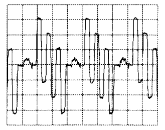
0.2V/div AC
20µs div

TP23



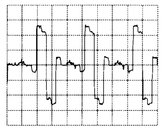
0.2V/div AC
20µs div

TP24



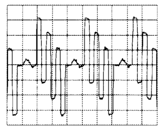
0.2V/div AC
20µs div

TP25



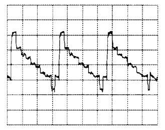
0.2V/div AC
20µs div

TP26



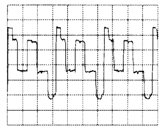
0.2V/div AC
20µs div

TP27



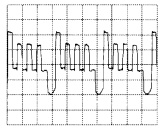
0.1V/div AC
20µs div

TP28



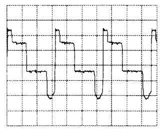
0.5V/div AC
20µs div

TP29



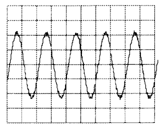
0.5V/div AC
20µs div

TP30



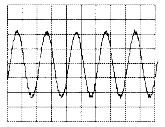
0.5V/div AC
20µs div

TP31



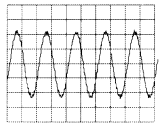
10mV/div AC
0.5ms div

TP32



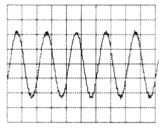
10mV/div AC
0.5ms div

TP33



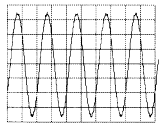
10mV/div AC
0.5ms div

TP34



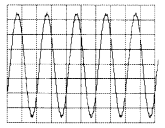
10mV/div AC
0.5ms div

TP35



200mV/div AC
0.5ms div

TP36

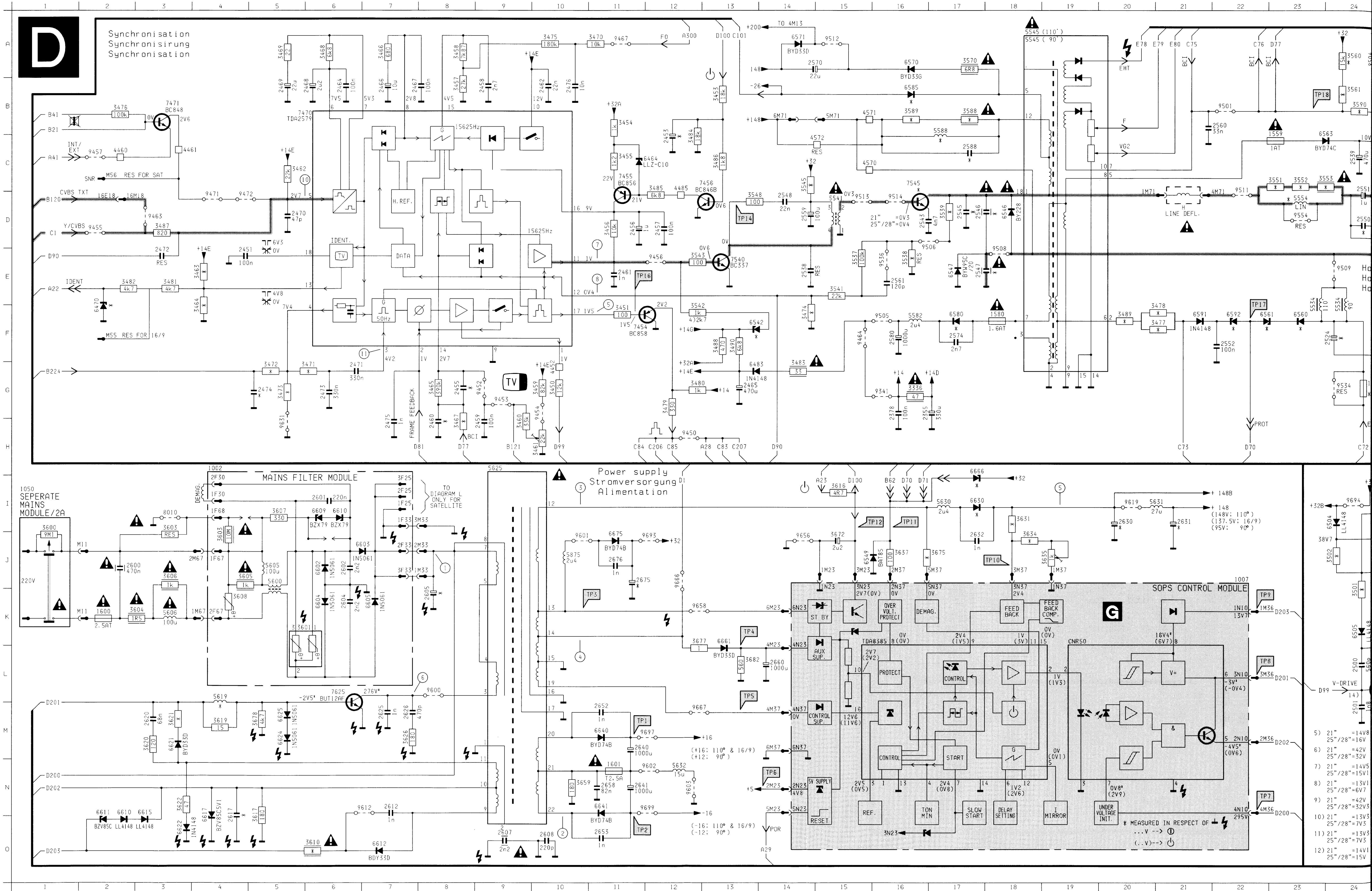


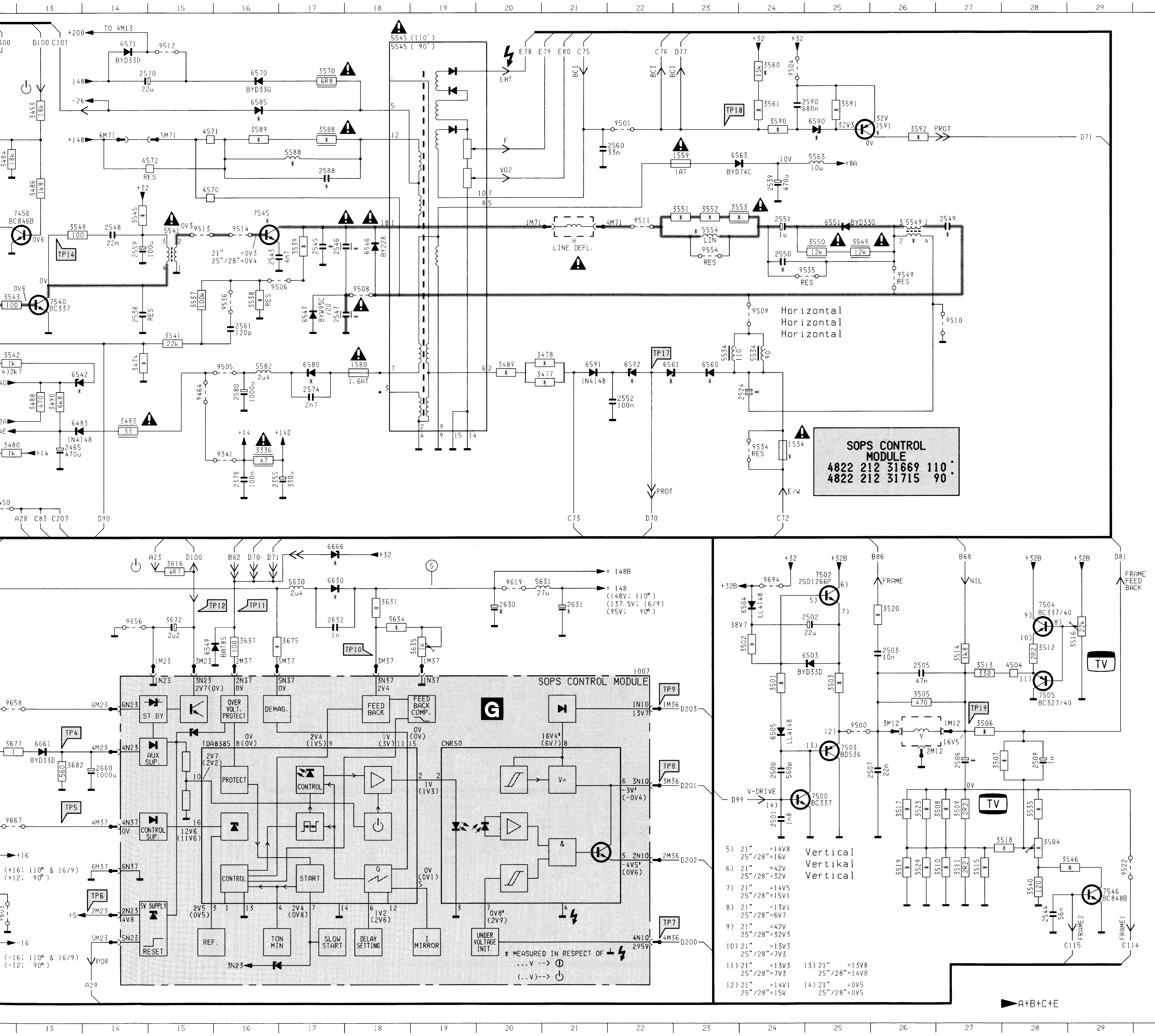
200mV/div AC
0.5ms div

Power supply/Stromversorgung/Alimentation

www.manualscenter.com

CHASSIS GR


D
Synchronisation
Synchronisierung
Synchronisation
TDA2579
15625Hz
H.REF.
IDENT.
DATA
50Hz
FRAME FEEDBACK
LINE DEFL.
EHT
PROT
MAINS FILTER MODULE
1050 SEPERATE MAINS MODULE/2A
220V
TO DIAGRAM L ONLY FOR SATELLITE
Power supply
Stromversorgung
Alimentation
SOPS CONTROL MODULE
G
TDA8385
CNR50
ST BY
AUX SUP.
CONTROL SUP.
5V SUPPLY
RESET
OVER VOLT. PROTECT
DEMAG.
FEED BACK
FEED BACK COMP.
PROTECT
CONTROL
START
REF.
TON MIN
SLOW START
DELAY SETTING
I MIRROR
UNDER VOLTAGE INIT.
* MEASURED IN RESPECT OF
V-DRIVE
BUT12AF
BC848
BC856
BC846B
BC337
BC858
+ 148B
+ 148 (148V; 110°) (137.5V; 16/9) (95V; 90°)
(+16: 110° & 16/9) (+12: 90°)
(-16: 110° & 16/9) (-12: 90°)
5) 21" =14V8 25"/28"=16V
6) 21" =42V 25"/28"=32V
7) 21" =14V5 25"/28"=15V1
8) 21" =13V1 25"/28"=6V7
9) 21" =42V 25"/28"=32V3
10) 21" =13V3 25"/28"=7V3
11) 21" =13V3 25"/28"=7V3
12) 21" =14V1 25"/28"=15V
21" =0V3 25"/28"=0V4


13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
5545 (110°)
5545 (90°)
EHT
E78 E79 E80 C75
C76 D77
+32
+32
TP18
+200
TO 4M13
6571
BYD33D
9512
2570
22u
6570
BYD33G
3570
6R8
6585
3588
5588
2588
4572
RES
4571
3589
4570
+148
-26
6M71
5M71
3452
18k
3484
3486
1k8
7456
BC846B
0V6
TP14
3548
100
2548
22n
2559
100u
3545
+32
5541
0V3
9513
9514
7545
21" =0V3
25"/28"=0V4
3539
2543
2545
2546
6546
BY228
7540
BC337
3543
100
2538
RES
3537
100k
9536
3538
RES
9506
2561
120p
6547
BYW95C
2547
9508
3541
22k
3542
1k
6542
3488
470
3490
6k8
3474
9505
5582
2u4
6580
2574
2n7
1580
1.6AT
9464
2580
1000u
3483
33
6483
1N4148
2465
470u
3480
1k
+14
+14
+14D
3336
47
9341
2378
100n
2355
330u
A28 C83 C207
D90
9501
2560
33n
F
VG2
1559
1AT
6563
BYD74C
10V
5563
10u
+8A
2539
470u
3560
15k
3561
9504
2590
680n
3591
3590
6590
32V3
32V
7591
0V
3592
PROT
D71
1M71
H
LINE DEFL.
4M71
9511
3551
3552
3553
5554
LIN
9554
RES
2551
1u
6551
BYD33G
5549
2549
3550
12k
3549
12k
2550
9535
RES
9549
RES
9509
9510
Horizontal
Horizontal
Horizontal
5534
110
5534
90
3489
3478
3477
6591
1N4148
6592
TP17
6561
6560
2552
100n
2524
1534
9534
RES
SOPS CONTROL MODULE
4822 212 31669 110°
4822 212 31715 90°
PROT
E/W
C73
D70
C72
A23
D100
B62 D70 D71
6666
+32
3616
4R7
5630
2u4
6630
9619
5631
27u
+ 148B
+ 148
(148V: 110°)
(137.5V: 16/9)
(95V: 90°)
2630
2631
2632
1n
3631
3634
3635
TP10
TP12
TP11
9656
3672
2u2
6549
BA185
3637
3675
1M23
3M23
2M37
5M37
3M37
1M37
1007
SOPS CONTROL MODULE
1M23
3N23
2V7(0V)
2N37
0V
5N37
0V
3N37
2V4
1N37
OVER VOLT. PROTECT
DEMAG.
FEED BACK
FEED BACK COMP.
G
1N10
13V7
TP9
1M36
D203
ST BY
6N23
9658
6M23
TDA8585
AUX SUP.
4N23
TP4
3677
1
6661
BYD33D
3682
560
4M23
2660
1000u
PROTECT
CONTROL
CNR50
V=
16V4*
(6V7)
TP8
3M36
3N10
-3V*
(-0V4)
D201
TP5
9667
4N37
0V
4M37
CONTROL SUP.
+16
(+16: 110° & 16/9)
(+12: 90°)
6M37
6N37
CONTROL
START
&
2N10
-4V5*
(0V6)
2M36
D202
TP6
+5
2M23
2N23
14V8
5V SUPPLY
-16
5M23
5N23
RESET
(-16: 110° & 16/9)
(-12: 90°)
POR
A29
REF.
TON MIN
SLOW START
DELAY SETTING
I MIRROR
UNDER VOLTAGE INIT.
TP7
4N10
295V
4M36
D200
3N23
* MEASURED IN RESPECT OF
...V --> ①
(..V)--> ⏻
+32
+32B
B86
B68
+32B
+32B
D81
FRAME
FEED
BACK
FRAME
NIL
+32B
9694
6504
LL4148
38V7
2502
22u
7502
2SD1266P
3502
6503
BYD33D
3501
3503
6505
LL4148
2500
560p
2501
1n8
7503
BD536
7500
BC337
V-DRIVE
D99
3520
2503
10n
2505
47n
3505
470
9500
3M12
V
1M12
2M12
16V5
2507
22n
2506
3514
1k8
3513
330
4504
7504
BC337/40
3512
2R2
3516
22k
TV
7505
BC327/40
TP19
3506
3507
2509
1u
0V
3517
3523
3508
3509
2R2
TV
3535
3518
3504
3546
3519
3529
3510
3511
2R2
3515
3540
120
2544
56n
7546
BC848B
FRAME2
FRAME1
9522
C115
C114
5) 21" =14V8
25"/28"=16V
6) 21" =42V
25"/28"=32V
7) 21" =14V5
25"/28"=15V1
8) 21" =13V1
25"/28"=6V7
9) 21" =42V
25"/28"=32V3
10) 21" =13V3
25"/28"=7V3
11) 21" =13V3
25"/28"=7V3
12) 21" =14V1
25"/28"=15V
13) 21" =13V8
25"/28"=14V8
14) 21" =0V5
25"/28"=0V5
Vertical
Vertikal
Vertical
A+B+C+E

REMARKS/REMARQUES/ANMERKUNGEN/NOTE

PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERaTEN
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:

1) 25"-28" BLACK-LINE S
2) 21"-90°
3) BLACK-LINE 16/9
4) 21"-110°
5) 29"

*	1)	2)	3)	4)	5)
1534	315mA	-	315mA	315mA	315mA
2453	22u	22u	22u	22u	22u
2455	1n	1n	3n3	560p	3n3
2460	2n7	10n	10n	1n5	3n3
2474	-	-	100n	-	-
2506	1000u	1000u	2200u	1000u	1000u
2524	-	4u7	-	-	-
2545	1n5	1n2	1n5	1n2	1n5
2546	11n	13n	12n	7n5	13n
2547	27n	47n	22n	22n	27n
2549	470n	-	470n	470n	470n
2550	390n	680n	-	330n	680n
2588	JMP	RES	470p	-	-
2605	220u	150u	220u	220u	220u
2617	1u	470n	1u	1n	1u
2630	100u	47u	100u	100u	100u
2631	100u	47u	100u	100u	100u
2662	270p	220p	270p	-	270p
2663	82p	100p	82p	-	82p
2675	1000u	680u	1000u	100u	1000u
3463	18k	18k	3k3	18k	18k
3464	12k	12k	-	12k	12k
3467	2M7	3M3	2M2	3M9	2M7
3471	120k	470k	120k	270k	270
3472	-	-	820k	-	-
3473	270k	270k	330k	270k	270k
3474	5k6	5k6	2k7	5k6	5k6
3477	2R2	0R5	-	0R5	0R5
3478	4R7	0R5	-	0R5	0R5
3489	0R5	1R	-	0R5	0R5
3501	22	27	27	22	22
3502	1k2	2k7	1k2	1k2	1k2
3503	1R2	4R7	1R2	1R2	1R5
3504	100	100	-	100	100
3506	330k	330k	270k	330k	470k
3507	22k	27k	22k	27k	33k
3508	2R2	2R2	-	-	2R2
3510	2R2	2R2	2R2	-	2R2
3515	2R2	2R2	-	2R2	2R2
3517	2R2	-	2R2	2R2	2R2
3518	-	-	10	-	-
3519	2R2	-	2R2	2R2	2R2
3520	4k7	4k7	-	4k7	4k7
3523	2R2	1n	2R2	1n	2R2
3529	2R2	-	2R2	1n	2R2
3535	120	150	-	120	120
3539	470k	470k	470k	470k	470k
3542	1k	2k7	-	1k	1k
3545	180	330	180	330	220
3546	180	120	-	150	180
3551	560	560	-	560	560
3552	560	560	-	560	560
3553	560	560	-	560	560
3560	15k	33k	15k	15k	15k
3561	2k2	3k3	5k6	12k	2k2
3588	-	27	560	27	-
3589	-	27	1k5	27	-
3590	330k	-	100k	330k	330k
3591	6k8	-	6k8	6k8	6k8
3592	680	-	680	680	680
3610	8R2	6R8	8R2	8R2	8R2
3621	27	56	27	27	27
3631	220k	120k	220k	220k	220k
3634	3k3	2k7	3k3	3k3	3k3
3675	120k	47k	120k	120k	120k
5549	100u	-	100u	100u	100u
5554	COIL LC90	AT4042/97	-	AT4042/97	COIL LC90
5588	100u	22u	100u	22u	100u
5619	3u9	4u7	3u9	3u9	3u9
6642	BZX79/C15	BZX79/C22	-	BZX79/C15	BZX79/C15
6560	LL4148	-	LL4148	LL4148	LL4148
6561	BZX79/C68	-	BZX79/C68	BZX79/C68	BZX79/C68
6580	BYV28-200/20	BYV28-200	BYU29F	BYV28-200/20	BYV28-200
6585	BYD33G	-	BYD33G	BYD33G	BYD33G
6590	LLZ/C33	-	LLZ/C33	LLZ/C33	LLZ/C33
6592	LLZ/C27	LLZ/C27	-	LLZ/C27	LLZ/C22
6630	BY229F-600	BYD74G	BY229F-600	BY229F-600	BY229F-600
6666	LLZ/C36	LLZ/C43	LLZ/C36	LLZ/C36	LLZ/C36
6470	-	-	LLZ/CW8	-	-
7575	BU508AF	BU508AF	BU508AF	BU508AF	BU2520AF
7591	BC858B	-	BC858B	BC858B	BC858B

CHASSIS GR2.4

CL 46532061/016.DPAR
181094

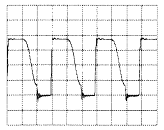
1002	H 4
1007	J22
1050	I 1
1534	G24
1559	C23
1580	F18
1600	K 2
1601	N11
2355	G16
2378	G16
2451	E 4
2453	C12
2455	G 8
2456	D11
2457	D12
2458	B 9
2459	H 9
2460	H 8
2461	E11
2462	B10
2464	B 6
2465	G13
2466	B 7
2467	B 7
2468	B 6
2469	B 5
2470	D 5
2471	G 6
2472	E 3
2473	G 6
2474	G 5
2475	H 7
2476	B10
2500	L24
2501	M24
2502	J25
2503	J26
2505	J26
2506	L27
2507	L26
2509	L28
2524	F24
2538	E14
2539	C24
2543	D16
2544	N28
2545	D17
2546	D17
2547	E17
2548	D14
2549	D27
2550	D24
2551	D24
2552	F22
2559	D14
2560	B22
2561	E16
2570	A14
2574	F17
2580	F16
2588	C17
2590	B24
2600	J 2
2601	I 6
2602	J 6
2604	K 6
2605	K 8
2607	O 9
2608	O10
2612	N 7
2617	N 4
2620	M 3
2625	M 7
2626	M 7
2630	I20
2631	I21
2632	J17
2640	M11
2641	N11
2652	M11
2653	O11
2658	N11
2660	L14
2675	J11
2676	J11
3336	G16
3450	G10
3451	F11
3453	B13
3454	B11
3455	C11
3456	D11
3457	B 8
3458	A 8
3459	G10
3460	H 9
3461	H10
3462	C 5
3463	E 4
3464	F 4
3465	G 8
3466	A 7
3467	H 8
3468	A 6
3469	A 5
3470	A11
3471	G 6
3472	G 5
3473	G 5
3474	F14
3475	A10
3476	B 2
3477	F21
3478	F21
3479	G12
3480	G12
3481	E 3
3482	E 2
3483	G14
3484	C12
3485	C12
3486	C13
3487	D 3
3488	F13
3489	F20
3490	F13
3501	K24
3502	J24
3503	K25
3504	M28
3505	K26
3506	K27
3507	L27
3508	L27
3509	L27
3510	M27
3511	M27
3512	J28
3513	J27
3514	J27
3515	M27
3516	J29
3517	L26
3518	M28
3519	M26
3520	I26
3523	L26
3529	M26
3535	L28
3537	E15
3538	E16
3539	D17
3540	N28
3541	E15
3542	F12
3543	E12
3545	C14
3546	M29
3548	D13
3549	D25
3550	D25
3551	C23
3552	C23
3553	C24
3560	A24
3561	B24
3570	A17
3588	B17
3589	B16
3590	B24
3591	B25
3592	B26
3600	I 1
3601	K 5
3603	I 3
3603	J 4
3604	K 3
3605	J 4
3606	J 3
3607	I 5
3608	K 4
3610	O 6
3616	I15
3617	N 5
3619	M 4
3620	M 3
3621	M 3
3622	N 3
3626	M 7
3631	I18
3634	J18
3635	J19
3637	J16
3659	N10
3672	J15
3675	J17
3677	K12
3678	M 5
3682	L13
4452	G10
4460	C 2
4461	C 3
4485	C12
4504	J28
4570	C15
4571	B15
4572	C15
5534	E23
5534	E24
5541	D15
5545	A18
5545	A18
5549	D26
5554	D23
5563	C25
5582	F16
5588	B17
5600	J 5
5605	J 5
5606	K 3
5619	L 4
5625	H 9
5630	I17
5631	I21
5632	N12
5875	J10
6464	C11
6470	F 2
6483	G13
6503	J25
6504	I24
6505	K24
6542	F13
6546	D18
6547	E17
6549	J15
6551	D25
6560	F23
6561	F22
6563	C24
6570	A16
6571	A14
6580	F17
6585	B16
6590	B25
6591	F21
6592	F22
6602	J 6
6603	J 7
6604	K 6
6605	K 7
6610	N 2
6611	N 2
6612	O 7
6615	N 3
6617	N 4
6621	M 3
6622	O 3
6624	M 5
6625	M 5
6630	I17
6640	M11
6641	N11
6661	K13
6666	H17
6675	J11
7454	F12
7455	C11
7456	C13
7470	B 6
7471	B 3
7500	L25
7502	I25
7503	L25
7504	I28
7505	K28
7540	E13
7545	C16
7546	N29
7591	B26
7625	L 6
8010	I 3
9341	G16
9450	H12
9452	G 9
9453	G 9
9454	G10
9455	D 2
9456	E12
9457	C 2
9463	D 3
9464	F15
9467	A11
9471	D 4
9472	D 4
9500	K25
9501	B22
9504	A24
9505	F16
9506	D17
9508	E18
9509	E24
9510	E27
9511	D22
9512	A15
9513	D15
9514	D16
9522	M29
9534	G24
9535	D25
9536	E16
9549	D26
9554	D23
9600	L 8
9601	J10
9602	N12
9603	N12
9612	N 7
9619	I20
9631	H 5
9656	J14
9658	K12
9666	J12
9667	M12
9693	J12
9694	I24
9697	M12
9699	N12

Mono carrier / Hauptplatine / Châssis

TP1 = DC 15V9

TP2 = DC -15V9

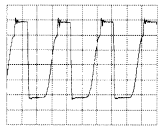
TP3



20V/div AC
5µs div

TP4 = DC 9V7

TP5

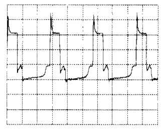


5V/div AC
5µs div

TP6 = DC 4V8

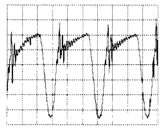
TP7 = DC 298V

TP8



2V/div AC
5µs div

TP9



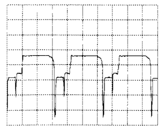
0.2V/div AC
5µs div

TP10 = DC 2V4

TP11 = DC 0V

TP12 = DC 2V7

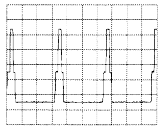
TP14



2V/div AC
20µs div

TP15 = DC 13V4

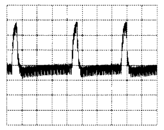
TP16



2V/div AC
20µs div

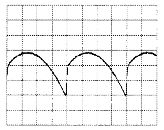
TP17 = DC 0V

TP18



2V/div AC
5ms div

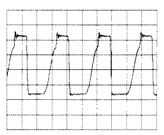
TP19



1V/div AC
5ms div

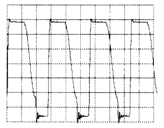
① = DC 298V

②



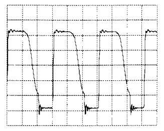
10V/div AC
5µs div

③



50V/div AC
5µs div

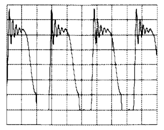
④



5V/div AC
5µs div

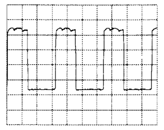
5a = DC 144V

⑥



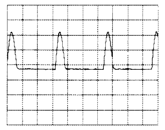
100V/div AC
5µs div

⑦



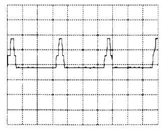
0.5V/div AC
20µs div

⑧



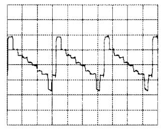
1V/div AC
20µs div

⑨

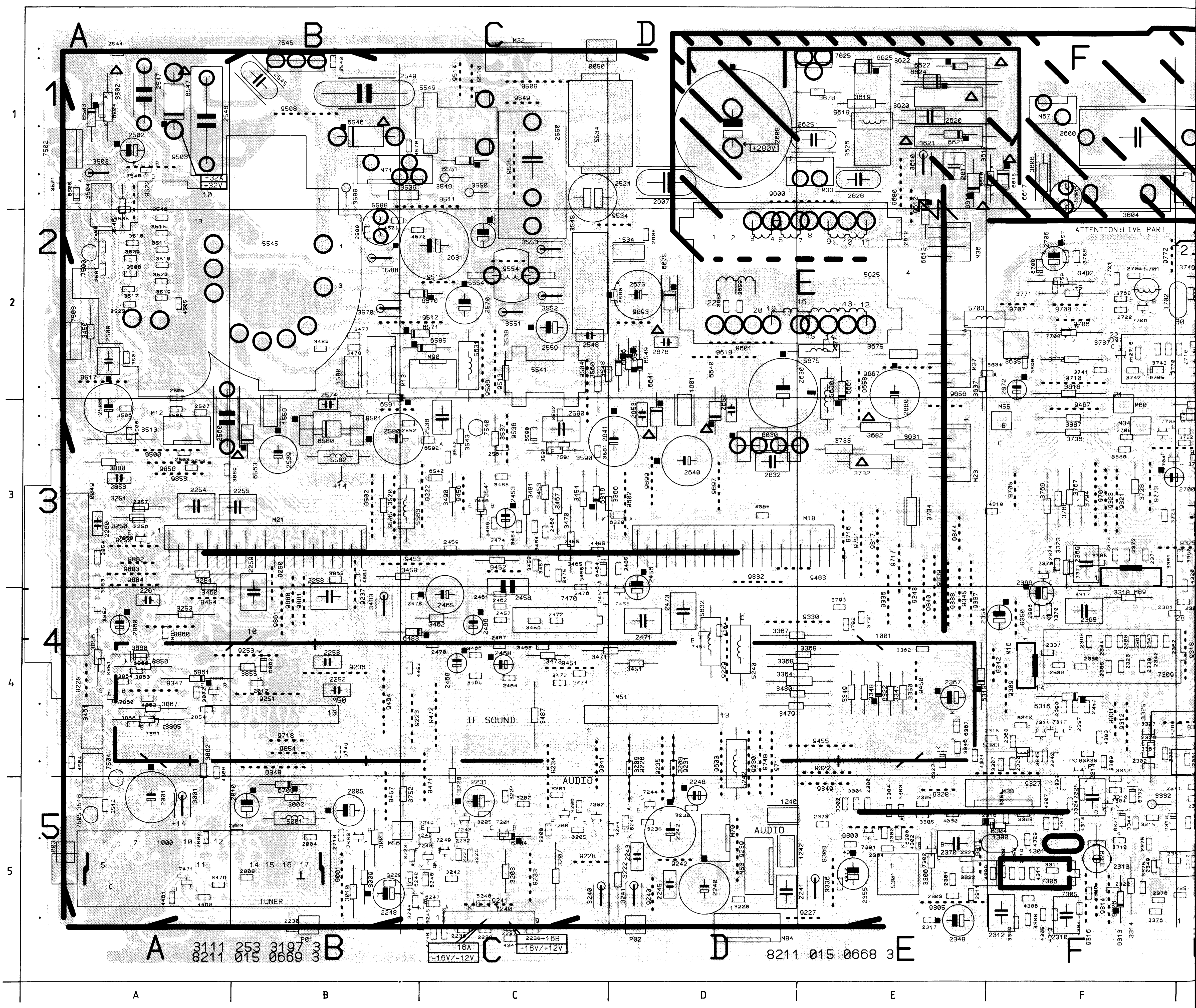


5V/div AC
20µs div

⑩

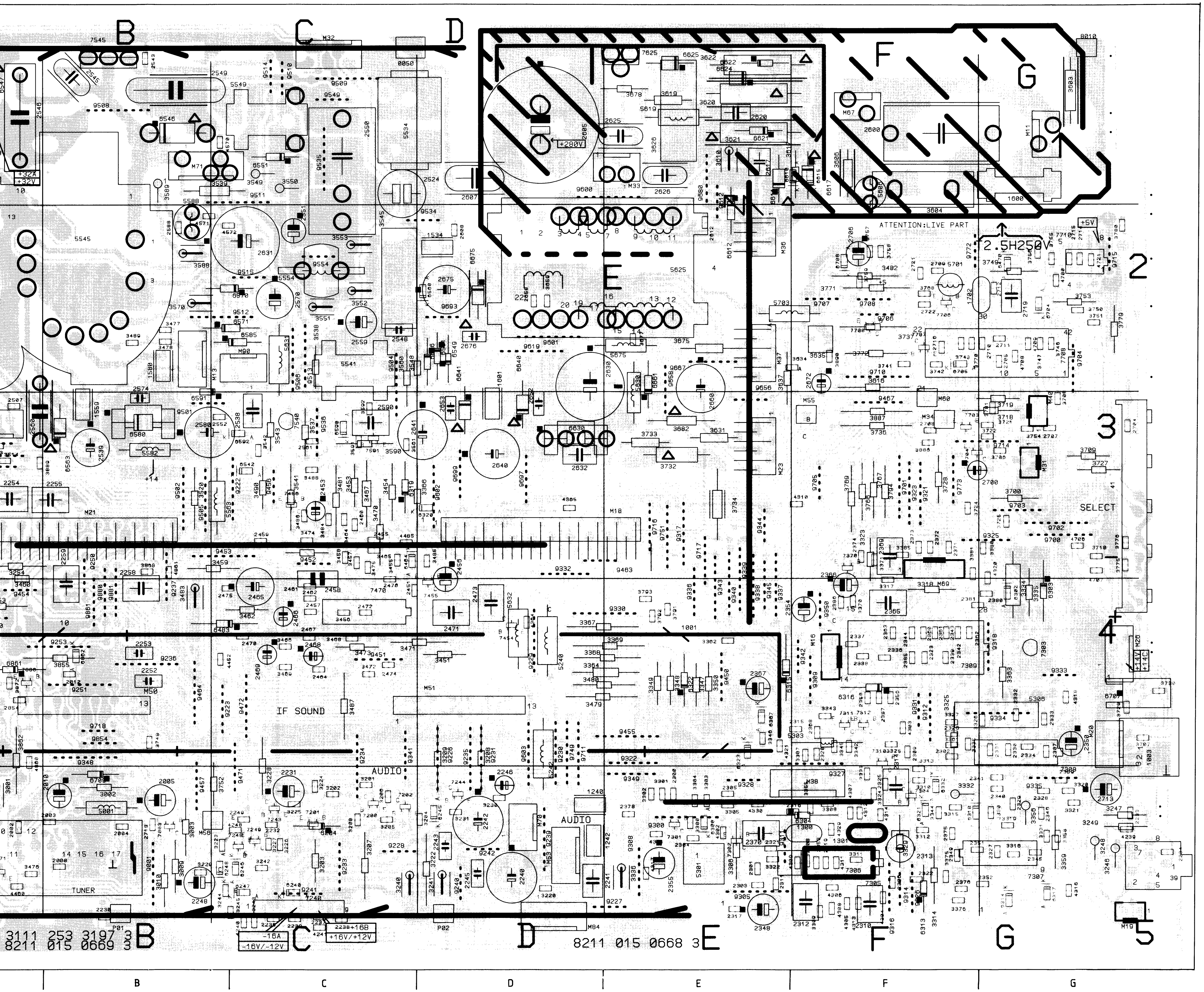


0.5V/div AC
20µs div



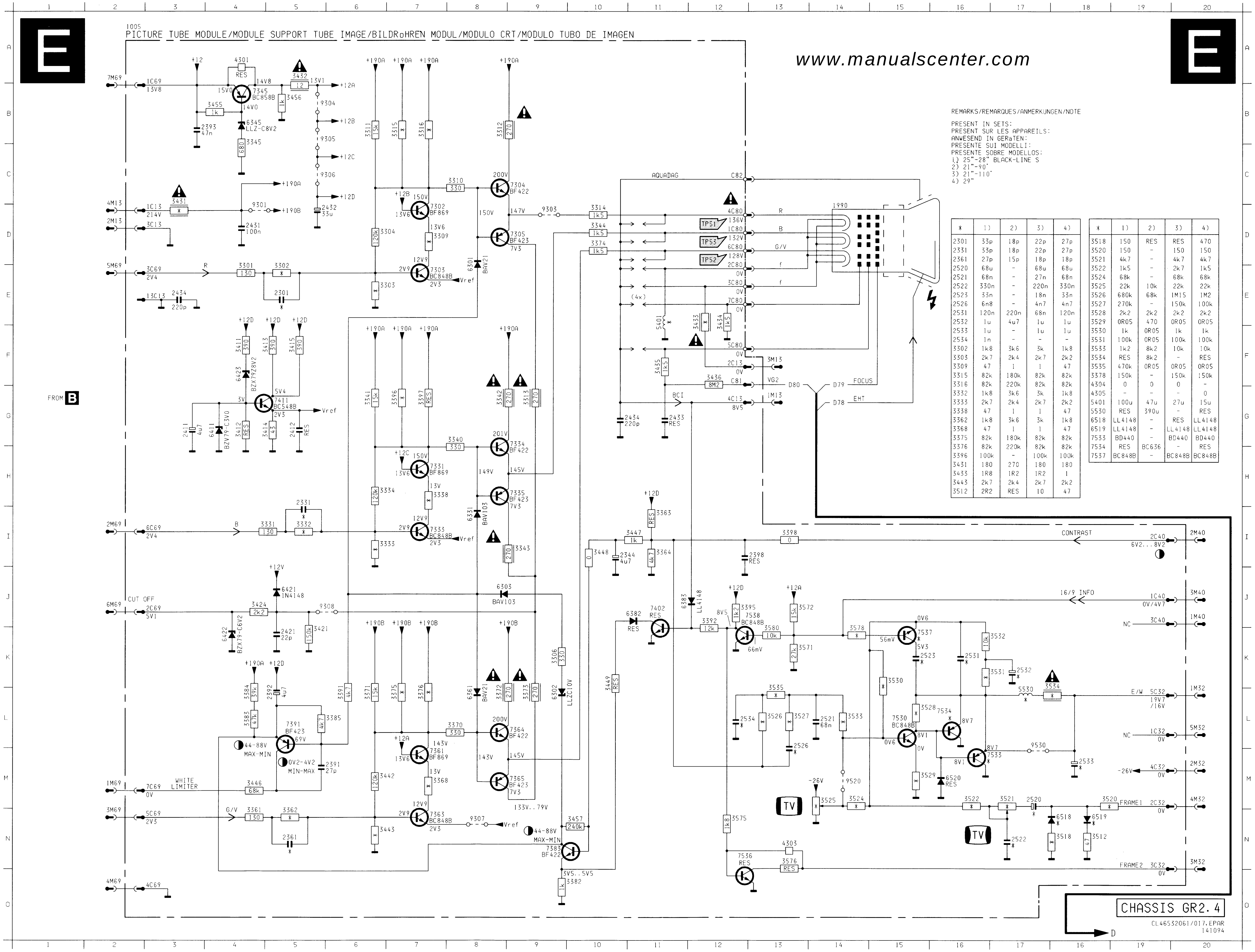
A
B
C
D
E
F
1
2
3
4
5
ATTENTION:LIVE PART
+280V
+32A
+32V
IF SOUND
AUDIO
TUNER
M51
M21
M18
-16A
-16V/-12V
2238+16B
+16V/+12V
3111 253 3197 3
8211 015 0669 3
8211 015 0668 3

Mono carrier / Hauptplatine / Châssis



0049 A3	2380 G4	3230 D5	3502 A1	3853 A3	6547 A1	9326 F5	M55 F3
0050 C1	2381 F4	3231 D5	3503 A1	3854 A3	6549 D2	9327 F4	M56 B5
1000 A5	2385 F4	3240 C5	3504 A1	3855 B4	6551 C1	9328 E5	M60 F3
1003 G4	2386 F4	3241 D5	3505 A3	3856 A4	6560 D2	9330 D4	M67 F1
1240 D5	2451 C4	3242 C5	3506 A3	3860 A4	6561 D2	9331 F4	M69 F3
1242 D5	2453 C3	3243 C5	3507 A2	3861 A4	6563 B3	9332 D3	M70 D5
1300 F5	2455 C3	3244 B5	3508 A2	3862 A4	6570 B2	9333 G4	M71 B1
1301 F5	2456 D4	3245 B5	3509 A2	3863 A4	6571 B2	9334 G4	M84 D5
1534 D2	2457 C4	3246 G5	3510 A2	3864 A4	6580 B3	9335 G5	M90 C2
1559 B3	2458 C4	3247 G5	3511 A2	3865 A4	6585 C2	9336 E4	P01 B5
1580 B2	2459 C3	3248 G5	3512 A5	3866 A4	6590 C3	9337 E4	P02 D5
1600 G1	2460 C3	3249 G5	3513 A3	3867 A4	6591 B2	9338 E4	P03 A5
1601 D3	2461 C4	3250 A3	3514 A3	3868 B3	6592 C3	9339 E4	
1702 G2	2462 C4	3251 A3	3515 A2	3872 A4	6610 E1	9340 E4	
2001 A5	2464 C4	3253 A4	3516 A4	3886 F3	6611 E1	9341 C4	
2003 B5	2465 C4	3254 A3	3517 A2	3887 F3	6612 E2	9342 F4	
2004 B5	2466 C4	3300 E5	3518 A2	3888 A3	6615 F1	9343 E4	
2005 B5	2467 C4	3301 E5	3519 A2	3889 A3	6617 F1	9344 E3	
2008 B5	2468 C4	3302 E5	3520 B3	3890 F2	6621 E1	9345 E4	
2010 B5	2469 C4	3303 E5	3523 A2	4239 G5	6622 E1	9347 A4	
2012 B4	2470 C4	3304 E5	3529 A2	4240 C5	6624 E1	9348 B4	
2230 B5	2471 D4	3305 E5	3535 A1	4241 C5	6625 E1	9349 E5	
2231 C5	2472 C4	3306 E5	3537 C3	4248 C5	6630 D3	9350 F4	
2232 C5	2473 D4	3307 F4	3538 C2	4301 E5	6640 D3	9450 E4	
2233 G5	2474 C4	3308 F5	3539 B1	4302 E5	6641 D3	9451 C4	
2234 G5	2475 B4	3309 F5	3540 A2	4303 F4	6661 E2	9452 C3	
2236 C5	2476 C3	3310 F5	3541 C3	4304 F5	6666 D2	9453 B3	
2237 C5	2500 A2	3311 F5	3542 C3	4305 F5	6675 D2	9454 A4	
2238 C5	2501 A2	3312 F5	3543 C3	4306 F5	6704 G2	9455 E4	
2239 C5	2502 A1	3313 F5	3545 C2	4307 F5	6705 F2	9456 C3	
2240 D5	2503 A3	3314 F5	3546 A1	4308 F5	6707 G4	9457 B5	
2241 D5	2505 A2	3315 F5	3548 C2	4309 F5	6708 F2	9463 D3	
2242 D5	2506 A3	3316 G5	3549 C1	4310 F3	6709 B5	9464 B4	
2243 D5	2507 A3	3317 F4	3550 C1	4311 F5	6860 A4	9467 F3	
2245 D5	2509 A2	3318 F4	3551 C2	4312 F5	6861 A4	9471 C5	
2246 D5	2524 C1	3319 G5	3552 C2	4313 F5	6862 B4	9472 C4	
2248 B5	2538 C3	3320 G5	3553 C2	4314 F5	7003 B5	9500 A3	
2249 C5	2539 B3	3321 G5	3560 C2	4316 G5	7200 C5	9501 B3	
2252 B4	2543 B1	3322 E5	3561 C3	4317 E5	7201 C5	9502 B3	
2253 B4	2544 A1	3323 F3	3570 B2	4318 G4	7202 C5	9503 A1	
2254 A3	2545 B1	3324 F5	3588 B2	4320 G4	7240 C5	9504 C2	
2255 B3	2546 A1	3325 F4	3589 B1	4321 E4	7243 C5	9505 B3	
2256 A3	2547 A1	3326 F4	3590 C3	4329 F5	7244 D5	9506 C2	
2257 A3	2548 C2	3327 F4	3591 C3	4330 E5	7248 C5	9508 B1	
2258 B4	2549 B1	3328 F4	3592 C3	4364 D4	7249 C5	9509 C1	
2259 B4	2550 C1	3329 F5	3603 G1	4365 D3	7301 E5	9510 C1	
2260 A3	2551 C2	3330 G5	3604 F1	4452 B4	7302 E5	9511 C1	
2261 A4	2552 B3	3331 G5	3606 F1	4460 A5	7303 G4	9512 B2	
2300 E5	2559 C2	3332 F5	3610 E1	4461 A5	7304 F5	9513 C2	
2301 E5	2560 A3	3333 F5	3616 F2	4485 C3	7305 F5	9514 C1	
2302 F4	2561 C3	3334 G4	3617 F1	4502 @5	7306 F5	9515 C2	
2303 E5	2570 C2	3335 G4	3619 E1	4504 A4	7307 F5	9517 A2	
2304 E5	2574 B3	3336 E5	3620 E1	4505 A2	7308 G5	9522 A1	
2305 E5	2580 B3	3342 F4	3621 E1	4506 A3	7309 F4	9534 D2	
2306 F5	2588 B2	3343 F4	3622 E1	4570 B1	7310 F4	9535 C1	
2307 G4	2590 C3	3344 F5	3626 E1	4571 B2	7311 F4	9536 C3	
2308 F5	2600 F1	3345 F4	3631 E3	4572 B2	7312 F4	9549 C1	
2309 F4	2605 D1	3346 E4	3634 E2	4700 G2	7370 F3	9554 C2	
2310 F5	2607 D1	3347 E4	3635 F2	4706 G3	7454 D4	9600 E1	
2311 E5	2608 D2	3348 E4	3637 E2	4707 G3	7455 D4	9601 D2	
2312 F5	2612 E2	3349 E4	3659 D2	4708 G2	7456 C3	9602 D3	
2313 F5	2617 E1	3350 E4	3675 E2	4709 G2	7470 C4	9603 D4	
2314 F5	2620 E1	3355 F5	3677 E2	4721 G2	7471 A5	9612 E1	
2315 E4	2625 E1	3356 G5	3678 E1	4860 A4	7500 A2	9619 D2	
2316 E5	2626 E1	3358 G5	3682 E3	4861 B3	7502 A1	9656 E3	
2317 E5	2630 D3	3359 G5	3700 G3	4862 A4	7503 A2	9658 E2	
2319 F5	2631 C2	3361 F4	3706 G3	4901 @2	7504 A5	9667 E2	
2320 F4	2632 D3	3362 E4	3707 G4	4902 @2	7505 A5	9680 E1	
2321 E5	2640 D3	3363 G4	3708 G3	5001 B5	7540 C3	9693 D2	
2322 F5	2641 D3	3364 D4	3709 G3	5240 D4	7545 B1	9697 D3	
2323 F4	2652 D3	3366 C3	3710 G3	5242 D4	7546 A1	9699 D3	
2325 F5	2653 D3	3367 D4	3718 G3	5301 E5	7591 C3	9700 G3	
2326 F4	2658 D2	3368 E4	3719 G3	5303 F4	7625 E1	9701 F3	
2327 G5	2660 E3	3369 E4	3721 G3	5306 G4	7700 F2	9702 G3	
2328 G5	2672 F2	3370 F4	3722 G3	5534 D1	7703 F3	9703 G3	
2329 G5	2675 D2	3371 F3	3724 F3	5541 C2	7704 F3	9704 G2	
2330 G4	2676 D2	3375 F5	3725 G3	5545 B2	7706 F2	9705 F3	
2331 G4	2700 F3	3376 F5	3727 G3	5549 C1	7707 F2	9706 F2	
2332 G4	2704 G3	3380 G3	3728 F3	5554 C2	7708 G2	9707 F2	
2333 G4	2705 G2	3381 F3	3729 G4	5563 B3	7710 G2	9708 F2	
2334 G4	2706 F2	3385 F3	3730 G4	5582 B3	7850 A3	9710 F2	
2335 F4	2707 G3	3450 A2	3732 E3	5588 B2	7860 A4	9711 D4	
2336 F4	2708 F3	3451 D4	3733 E3	5606 F1	7861 A4	9714 G3	
2337 F4	2709 F2	3453 C3	3734 E3	5619 E1	7886 A4	9715 G2	
2338 F4	2710 G2	3454 C3	3736 F3	5625 D2	8010 G1	9716 E3	
2339 F4	2711 G2	3455 C3	3737 F2	5630 E3	9001 B5	9717 E3	
2340 G5	2712 G2	3456 C4	3741 F2	5631 C2	9222 C3	9718 B4	
2341 G5	2713 G5	3457 C3	3742 F2	5632 D4	9223 B4	9749 D4	
2342 F4	2714 G2	3458 C3	3743 F2	5675 E2	9225 A4	9751 E3	
2343 F4	2715 G2	3459 B3	3746 G2	5701 F2	9226 D4	9772 F2	
2344 F4	2716 F2	3460 A3	3747 G2	5703 E2	9227 E5	9773 F3	
2345 G5	2718 B5	3461 A4	3748 B4	6204 C5	9228 C5	9853 A3	
2346 G5	2719 G2	3462 C4	3749 G2	6240 C5	9229 D4	9854 B4	
2348 E5	2721 F2	3463 C3	3750 G2	6245 D5	9230 D4	9856 A3	
2349 F5	2722 F2	3464 C3	3751 G2	6246 C5	9231 D4	9860 A4	
2350 G4	2853 A3	3465 C3	3752 B5	6247 C5	9233 C5	9861 B4	
2351 F5	2854 A4	3466 C4	3753 G2	6248 B5	9234 C5	9880 B4	
2352 F5	2860 A4	3467 C3	3754 G3	6300 E5	9235 D4	9881 B4	
2353 F5	3001 A5	3468 C4	3755 G2	6302 G4	9236 B4	9882 A3	
2354 F4	3002 B5	3469 C4	3756 G2	6303 G4	9237 B3	9883 A3	
2355 E5	3003 B5	3470 C3	3757 F2	6304 F5	9239 D5	9884 A3	
2356 F4	3009 B5	3471 C4	3758 F2	6310 F5	9240 D5	M11 G1	
2357 F4	3010 B5	3472 C4	3759 F2	6313 F5	9241 C5	M12 A3	
2358 F4	3200 C5	3473 C4	3766 F3	6314 G5	9242 D5	M13 B2	
2359 G5	3201 C5	3474 C3	3767 F3	6315 E4	9250 B3	M16 F4	
2360 F4	3202 C5	3475 C3	3768 F2	6316 F4	9251 B4	M18 D3	
2361 F4	3203 C5	3476 A5	3769 F3	6317 G5	9252 A3	M19 G5	
2362 F4	3204 C5	3477 B2	3770 F2	6319 C3	9253 B4	M20 G4	
2363 F4	3205 C5	3478 B2	3771 F2	6320 D3	9300 E5	M21 B3	
2365 F4	3206 C5	3479 D4	3772 F2	6321 F5	9305 E5	M23 E3	
2366 F4	3207 C5	3480 D4	3775 G3	6322 E4	9308 E5	M26 G4	
2367 E4	3208 D4	3481 C3	3776 G3	6323 E4	9309 F4	M31 G3	
2368 F4	3209 D4	3482 F2	3779 G2	6332 F5	9311 E5	M32 C1	
2369 F3	3220 D5	3483 B4	3780 G2	6367 E4	9312 F4	M33 E1	
2370 E5	3222 D5	3484 C3	3781 G3	6464 C3	9314 F5	M34 F3	
2371 F3	3223 B5	3485 D3	3791 E4	6470 G2	9316 F5	M36 E2	
2372 F3	3224 C5	3486 C3	3792 E4	6483 B4	9317 E3	M37 E2	
2373 F3	3225 C5	3487 C4	3793 E4	6503 A1	9318 G4	M38 E5	
2374 F3	3226 C5	3488 C3	3794 F3	6504 A1	9321 F3	M40 G3	
2375 F5	3227 C5	3489 B2	3850 A4	6505 A1	9322 E4	M50 B4	
2376 F5	3228 C4	3490 C3	3851 A4	6542 C3	9323 F3	M51 D4	
2378 E5	3229 B5	3501 A1	3852 A4	6546 B1	9325 G3	M53 D5	

Picture tube panel/Bildröhren platte/Platine TRC


E
1005
PICTURE TUBE MODULE/MODULE SUPPORT TUBE IMAGE/BILDRöHREN MODUL/MODULO CRT/MODULO TUBO DE IMAGEN
7M69
1C69
13V8
4M13
1C13
214V
2M13
3C13
5M69
3C69
2V4
13C13
2M69
6C69
6M69
CUT OFF
2C69
5V1
1M69
7C69
0V
WHITE LIMITER
3M69
5C69
2V3
4M69
4C69
FROM B
+12
+12A
+12B
+12C
+12D
+190A
+190B
+19OD
+12V
R
B
G/V
AQUADAG
C82
4C80
1C80
6C80
2C80
3C80
7C80
5C80
2C13
C81
4C13
TP51
TP53
TP52
1990
FOCUS
EHT
VG2
D80
D79
D78
BCI
3M13
1M13
CONTRAST
2C40
6V2...8V2
2M40
16/9 INFO
1C40
0V/4V7
3M40
NC
3C40
1M40
E/W
5C32
19V7/16V
1M32
1C32
5M32
4C32
-26V
2M32
FRAME1
2C32
4M32
FRAME2
3C32
3M32
TV
44-88V MAX-MIN
0V2-4V2 MIN-MAX
133V..79V
3V5..5V5
Vref
CHASSIS GR2.4
CL 46532061/017.EPAR
141094
D

REMARKS/REMARQUES/ANMERKUNGEN/NOTE

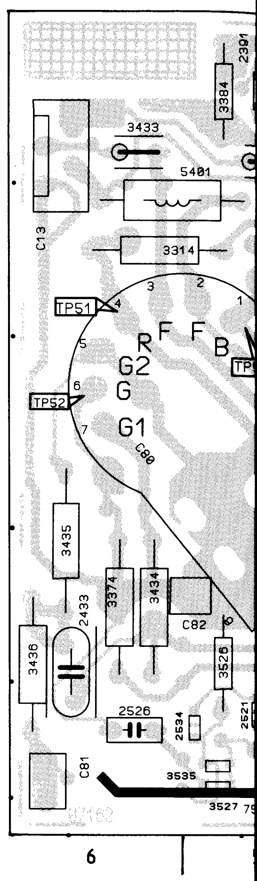
PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERäTEN:
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:
1) 25"-28" BLACK-LINE S
2) 21"-90°
3) 21"-110°
4) 29"

*	1)	2)	3)	4)
2301	33p	18p	22p	27p
2331	33p	18p	22p	27p
2361	27p	15p	18p	18p
2520	68u	-	68u	68u
2521	68n	-	27n	68n
2522	330n	-	220n	330n
2523	33n	-	18n	33n
2526	6n8	-	4n7	4n7
2531	120n	220n	68n	120n
2532	1u	4u7	1u	1u
2533	1u	-	1u	1u
2534	1n	-	-	-
3302	1k8	3k6	3k	1k8
3303	2k7	2k4	2k7	2k2
3309	47	1	1	47
3315	82k	180k	82k	82k
3316	82k	220k	82k	82k
3332	1k8	3k6	3k	1k8
3333	2k7	2k4	2k7	2k2
3338	47	1	1	47
3362	1k8	3k6	3k	1k8
3368	47	1	1	47
3375	82k	180k	82k	82k
3376	82k	220k	82k	82k
3396	100k	-	100k	100k
3431	180	270	180	180
3433	1R8	1R2	1R2	1
3443	2k7	2k4	2k7	2k2
3512	2R2	RES	10	47

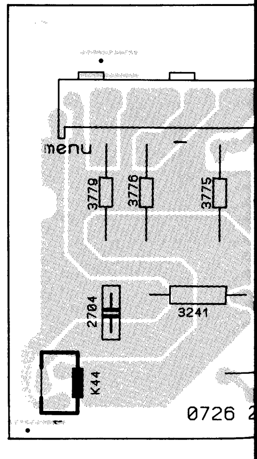
*	1)	2)	3)	4)
3518	150	RES	RES	470
3520	150	-	150	150
3521	4k7	-	4k7	4k7
3522	1k5	-	2k7	1k5
3524	68k	-	68k	68k
3525	22k	10k	22k	22k
3526	680k	68k	1M15	1M2
3527	270k	-	150k	100k
3528	2k2	2k2	2k2	2k2
3529	0R05	470	0R05	0R05
3530	1k	0R05	1k	1k
3531	100k	0R05	100k	100k
3533	1k2	8k2	10k	10k
3534	RES	8k2	-	RES
3535	470k	0R05	0R05	0R05
3378	150k	-	150k	150k
4304	0	0	0	-
4305	-	-	-	0
5401	100u	47u	27u	15u
5530	RES	390u	-	RES
6518	LL4148	-	RES	LL4148
6519	LL4148	-	LL4148	LL4148
7533	BD440	-	BD440	BD440
7534	RES	BC636	-	RES
7537	BC848B	-	BC848B	BC848B

1005	A 2
1990	D14
2301	E 5
2331	H 5
2344	I10
2361	N 5
2391	M 5
2392	L 5
2393	B 3
2398	I13
2411	G 3
2412	G 5
2421	K 5
2431	D 4
2432	D 5
2433	G12
2434	E 3
2434	G11
2520	M17
2521	L14
2522	N17
2523	K15
2526	M13
2531	K16
2532	K17
2534	L12
3301	E 4
3302	E 5
3303	E 6
3304	D 6
3306	K 9
3309	D 7
3310	C 8
3311	B 6
3312	B 8
3313	G 9
3314	D10
3315	B 7
3316	B 7
3331	I 5
3332	I 5
3333	I 6
3334	H 6
3338	H 7
3340	G 8
3341	G 6
3342	G 8
3343	I 9
3344	D10
3345	B 4
3361	N 4
3362	N 5
3363	I11
3364	I11
3368	M 7
3370	L 8
3371	L 6
3372	L 8
3373	L 9
3374	D10
3375	L 7
3376	L 7
3382	O 9
3383	L 4
3384	L 4
3385	L 6
3391	L 6
3392	J12
3395	J12
3396	G 7
3397	G 7
3398	I13
3411	F 4
3412	G 4
3413	F 5
3414	G 5
3415	F 5
3421	J 5
3424	J 4
3431	D 3
3432	A 5
3433	E12
3434	E12
3435	F11
3436	F12
3442	M 6
3443	N 6
3446	M 4
3447	I11
3448	I10
3449	K10
3455	B 4
3456	B 5
3457	N10
3512	N18
3518	N18
3520	M18
3521	M17
3522	M16
3524	M14
3525	M14
3526	L13
3527	L13
3528	L15
3529	M15
3530	K15
3531	K17
3532	K17
3533	L14
3534	L18
3535	L13
3571	K13
3572	J13
3575	N12
3576	N13
3578	K14
3580	K13
4301	A 4
4303	N13
5401	E11
5530	L17
6301	D 8
6302	L 9
6303	J 8
6331	I 8
6345	B 4
6361	L 8
6382	J11
6383	J11
6411	G 4
6421	J 5
6422	K 4
6423	F 4
6518	N18
6519	N18
6520	M16
7302	D 7
7303	E 7
7304	C 9
7305	D 9
7331	H 7
7333	I 7
7334	H 9
7335	H 9
7345	B 4
7361	M 7
7363	N 7
7364	L 9
7365	M 9
7383	N 9
7391	L 5
7402	J11
7411	G 5
7530	L15
7533	M16
7534	L16
7536	N12
7537	K15
7538	J12
9301	D 4
9301	O 3
9303	D 9
9304	B 5
9305	B 5
9306	C 5
9307	N 8
9308	J 5
9309	O 3
9530	L17

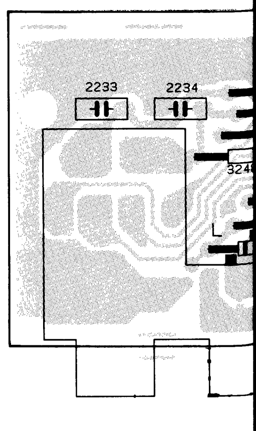
1005 PICTURE T

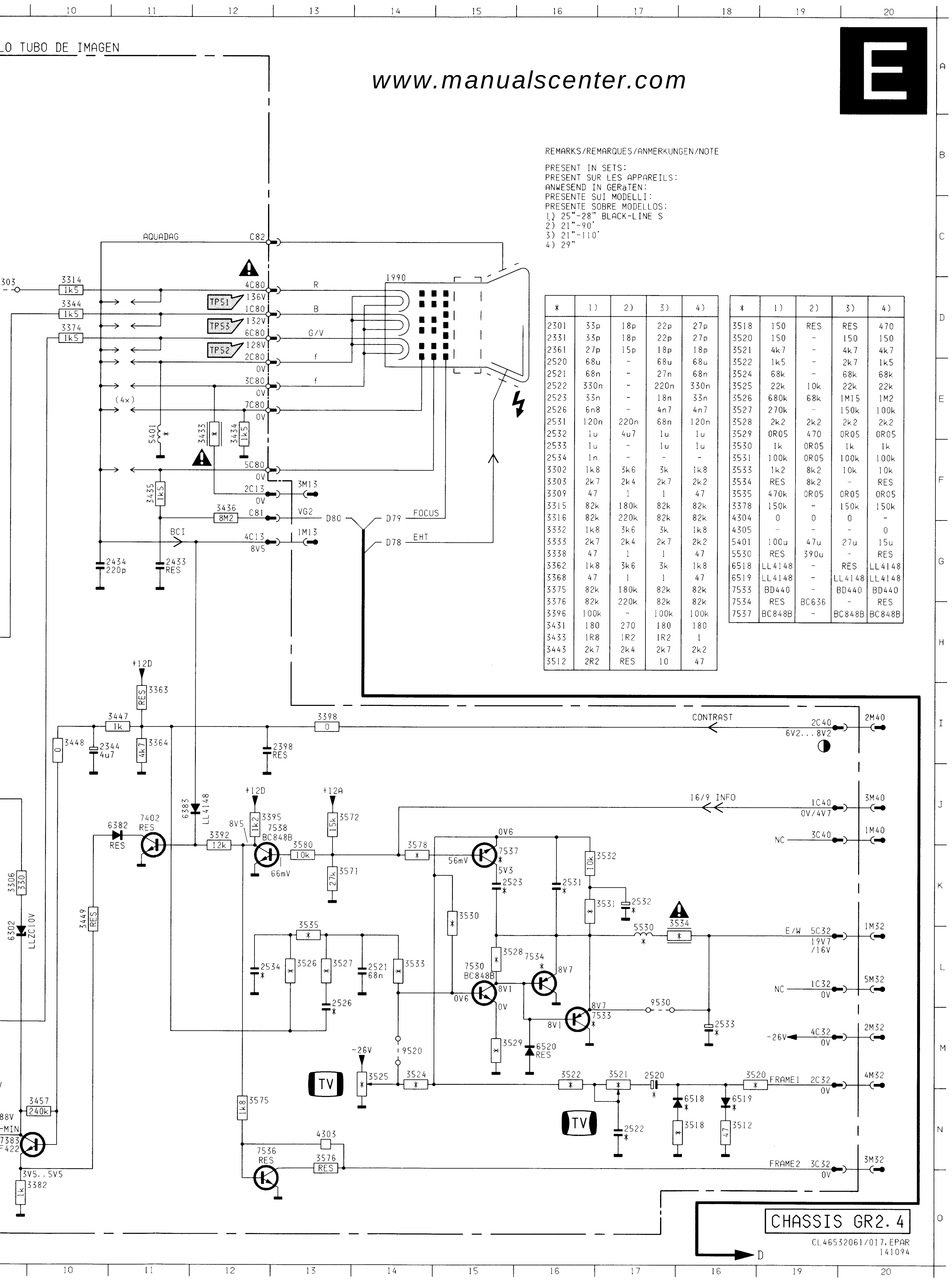

2391
3384
3433
5401
C13
3314
TP51
TP52
R
F
F
B
G2
G
G1
C80
3435
3374
3434
2433
C82
3436
2526
3526
2434
C81
3535
3527
6

1060 SEPARATE


menu
3779
3776
3775
2704
3241
K44
0726

1060 SEPARAT


2233
2234
324


E
LO TUBO DE IMAGEN
AQUADAG
C82
1990
R
B
G/V
3314 1k5
3344 1k5
3374 1k5
TP51
TP53
TP52
4C80
136V
1C80
132V
6C80
128V
2C80
3C80
7C80
5C80
5401
3433
3434 1k5
3435 1k5
3436 8M2
2C13
C81
VG2
4C13
8V5
3M13
1M13
D80
D79
D78
FOCUS
EHT
BCI
2434 220p
2433 RES
+12D
3363 RES
3447 1k
3364 4k7
3448 0
2344 4u7
3398 0
2398 RES
CONTRAST
2C40
6V2...8V2
2M40
6383 LL4148
16/9 INFO
1C40
0V/4V7
3M40
1M40
3C40
NC
6382 RES
7402 RES
3392 12k
3395 1k2
7538 BC848B
3580 10k
3571 27k
3572 15k
+12A
66mV
3578
0V6
56mV
7537
5V3
2523
2531
3532 10k
3531
2532
5530
3534
E/W 5C32
19V7 /16V
1M32
3530
3528
7534
8V7
7530 BC848B
8V1
7533
9530
2533
1C32
5M32
3535
2534
3526
3527
2521 68n
3533
2526
3529
6520 RES
-26V
9520
3525
3524
TV
3522
3521
2520
3520
FRAME1 2C32
4M32
6518
6519
3518
3512
2522
4C32
2M32
3306 330
6302 LLZC10V
3449 RES
3457 240k
7383 F422
3V5..5V5
3382 1k
3575 1k8
4303
7536 RES
3576 RES
FRAME2 3C32
3M32
CHASSIS GR2.4
CL 46532061/017.EPAR 141094
D
10
11
12
13
14
15
16
17
18
19
20

REMARKS/REMARQUES/ANMERKUNGEN/NOTE

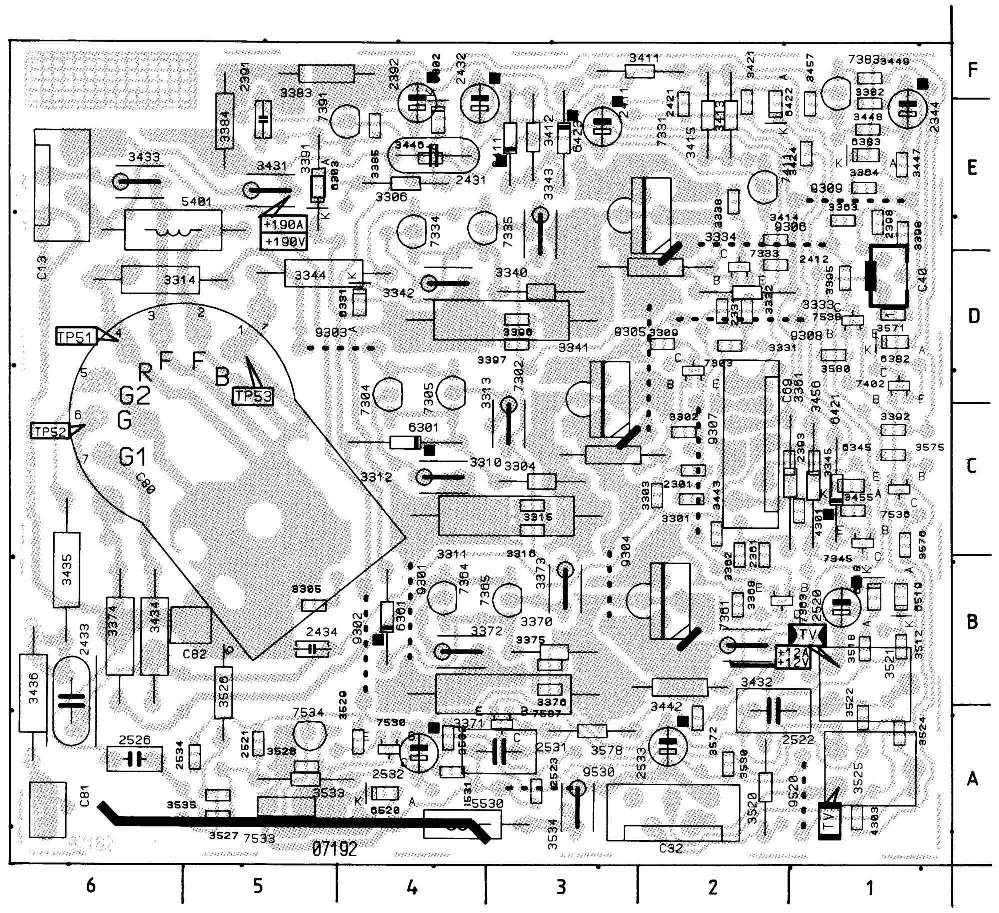
PRESENT IN SETS:
PRESENT SUR LES APPAREILS:
ANWESEND IN GERäTEN:
PRESENTE SUI MODELLI:
PRESENTE SOBRE MODELLOS:
1) 25"-28" BLACK-LINE S
2) 21"-90˚
3) 21"-110˚
4) 29"

*	1)	2)	3)	4)
2301	33p	18p	22p	27p
2331	33p	18p	22p	27p
2361	27p	15p	18p	18p
2520	68u	-	68u	68u
2521	68n	-	27n	68n
2522	330n	-	220n	330n
2523	33n	-	18n	33n
2526	6n8	-	4n7	4n7
2531	120n	220n	68n	120n
2532	1u	4u7	1u	1u
2533	1u	-	1u	1u
2534	1n	-	-	-
3302	1k8	3k6	3k	1k8
3303	2k7	2k4	2k7	2k2
3309	47	1	1	47
3315	82k	180k	82k	82k
3316	82k	220k	82k	82k
3332	1k8	3k6	3k	1k8
3333	2k7	2k4	2k7	2k2
3338	47	1	1	47
3362	1k8	3k6	3k	1k8
3368	47	1	1	47
3375	82k	180k	82k	82k
3376	82k	220k	82k	82k
3396	100k	-	100k	100k
3431	180	270	180	180
3433	1R8	1R2	1R2	1
3443	2k7	2k4	2k7	2k2
3512	2R2	RES	10	47

*	1)	2)	3)	4)
3518	150	RES	RES	470
3520	150	-	150	150
3521	4k7	-	4k7	4k7
3522	1k5	-	2k7	1k5
3524	68k	-	68k	68k
3525	22k	10k	22k	22k
3526	680k	68k	1M15	1M2
3527	270k	-	150k	100k
3528	2k2	2k2	2k2	2k2
3529	0R05	470	0R05	0R05
3530	1k	0R05	1k	1k
3531	100k	0R05	100k	100k
3533	1k2	8k2	10k	10k
3534	RES	8k2	-	RES
3535	470k	0R05	0R05	0R05
3378	150k	-	150k	150k
4304	0	0	0	-
4305	-	-	-	0
5401	100u	47u	27u	15u
5530	RES	390u	-	RES
6518	LL4148	-	RES	LL4148
6519	LL4148	-	LL4148	LL4148
7533	BD440	-	BD440	BD440
7534	RES	BC636	-	RES
7537	BC848B	-	BC848B	BC848B

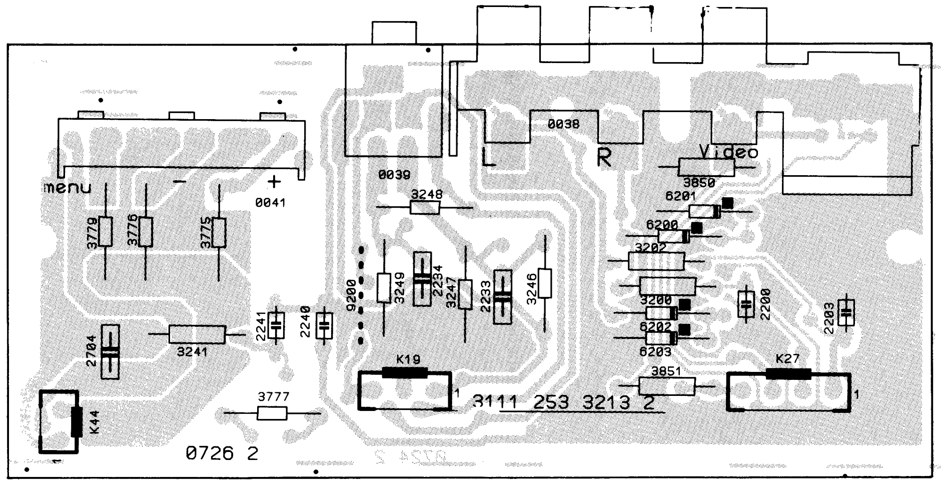
1005	A 2	3580	K13
1990	D14	4301	A 4
2301	E 5	4303	N13
2331	H 5	5401	E11
2344	I10	5530	L17
2361	N 5	6301	D 8
2391	M 5	6302	L 9
2392	L 5	6303	J 8
2393	B 3	6331	I 8
2398	I13	6345	B 4
2411	G 3	6361	L 8
2412	G 5	6382	J11
2421	K 5	6383	J11
2431	D 4	6411	G 4
2432	D 5	6421	J 5
2433	G12	6422	K 4
2434	E 3	6423	F 4
2434	G11	6518	N18
2520	M17	6519	N18
2521	L14	6520	M16
2522	N17	7302	D 7
2523	K15	7303	E 7
2526	M13	7304	C 9
2531	K16	7305	D 9
2532	K17	7331	H 7
2534	L12	7333	I 7
3301	E 4	7334	H 9
3302	E 5	7335	H 9
3303	E 6	7345	B 4
3304	D 6	7361	M 7
3306	K 9	7363	N 7
3309	D 7	7364	L 9
3310	C 8	7365	M 9
3311	B 6	7383	N 9
3312	B 8	7391	L 5
3313	G 9	7402	J11
3314	D10	7411	G 5
3315	B 7	7530	L15
3316	B 7	7533	M16
3331	I 5	7534	L16
3332	I 5	7536	N12
3333	I 6	7537	K15
3334	H 6	7538	J12
3338	H 7	9301	D 4
3340	G 8	9301	O 3
3341	G 6	9303	D 9
3342	G 8	9304	B 5
3343	I 9	9305	B 5
3344	D10	9306	C 5
3345	B 4	9307	N 8
3361	N 4	9308	J 5
3362	N 5	9309	O 3
3363	I11	9530	L17
3364	I11		
3368	M 7		
3370	L 8		
3371	L 6		
3372	L 8		
3373	L 9		
3374	D10		
3375	L 7		
3376	L 7		
3382	O 9		
3383	L 4		
3384	L 4		
3385	L 6		
3391	L 6		
3392	J12		
3395	J12		
3396	G 7		
3397	G 7		
3398	I13		
3411	F 4		
3412	G 4		
3413	F 5		
3414	G 5		
3415	F 5		
3421	J 5		
3424	J 4		
3431	D 3		
3432	A 5		
3433	E12		
3434	E12		
3435	F11		
3436	F12		
3442	M 6		
3443	N 6		
3446	M 4		
3447	I11		
3448	I10		
3449	K10		
3455	B 4		
3456	B 5		
3457	N10		
3512	N18		
3518	N18		
3520	M18		
3521	M17		
3522	M16		
3524	M14		
3525	M14		
3526	L13		
3527	L13		
3528	L15		
3529	M15		
3530	K15		
3531	K17		
3532	K17		
3533	L14		
3534	L18		
3535	L13		
3571	K13		
3572	J13		
3575	N12		
3576	N13		
3578	K14		

1005 PICTURE TUBE MODULE

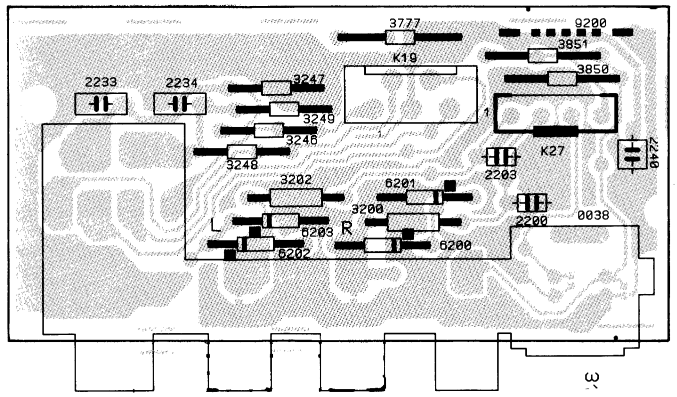

TP51
TP52
TP53
R
F
F
B
G2
G
G1
C13
C81
C82
C32
C40
5401
07192
A
B
C
D
E
F
6
5
4
3
2
1

2301	C2	3372	B4	3575	C1	C13	E6
2331	D2	3373	B3	3576	C1	C32	A2
2344	E1	3374	B6	3578	A3	C40	D1
2361	C2	3375	B3	3580	D1	C69	C2
2391	E5	3376	B3	4301	C1	C80	C5
2392	E4	3382	E1	4303	A1	C81	A6
2393	C1	3383	F5	5401	E6	C82	B5
2398	E1	3384	E5	6301	C4		
2411	E3	3385	E4	6302	E4		
2412	D2	3391	E5	6303	E5		
2421	E2	3392	C1	6331	D4		
2431	E4	3395	D1	6345	C1		
2432	E4	3396	D3	6361	B4		
2433	B6	3397	D3	6382	D1		
2434	B5	3398	E1	6383	E1		
2520	B1	3411	F2	6411	E3		
2521	A5	3412	E3	6421	C1		
2522	A2	3413	E2	6422	E2		
2523	A3	3414	E2	6423	E3		
2526	A6	3415	E2	6518	B1		
2531	A3	3421	F2	6519	B1		
2532	A4	3424	E1	6520	A4		
2533	A2	3431	E5	7302	D3		
2534	A5	3432	B2	7303	D2		
3301	C2	3433	E6	7304	D4		
3302	C2	3434	B6	7305	D4		
3303	C2	3435	B6	7331	E2		
3304	C3	3436	B6	7333	D2		
3305	B5	3442	B2	7334	E4		
3306	E4	3443	C2	7335	E3		
3309	D2	3446	E4	7345	C1		
3310	C3	3447	E1	7361	B2		
3311	C3	3448	E1	7363	B2		
3312	C4	3449	F1	7364	B4		
3313	C3	3455	C1	7365	B3		
3314	D6	3456	C1	7383	F1		
3315	C3	3457	E1	7391	E4		
3316	C3	3512	B1	7402	D1		
3331	D2	3518	B1	7411	E2		
3332	D2	3520	A2	7530	A4		
3333	D2	3521	B1	7533	A5		
3334	D2	3522	A1	7534	A5		
3338	E2	3524	A1	7536	C1		
3340	D3	3525	A1	7537	A3		
3341	D3	3526	B5	7538	D1		
3342	D4	3527	A5	9301	B4		
3343	E3	3528	A5	9302	B4		
3344	D5	3529	A4	9303	D4		
3345	C1	3530	A2	9304	B3		
3361	C1	3531	A4	9305	D2		
3362	C2	3532	A4	9306	E2		
3363	E1	3533	A5	9307	C2		
3364	E1	3534	A3	9308	D2		
3368	B2	3535	A5	9309	E1		
3370	B3	3571	D1	9520	A1		
3371	B3	3572	A2	9530	A3		

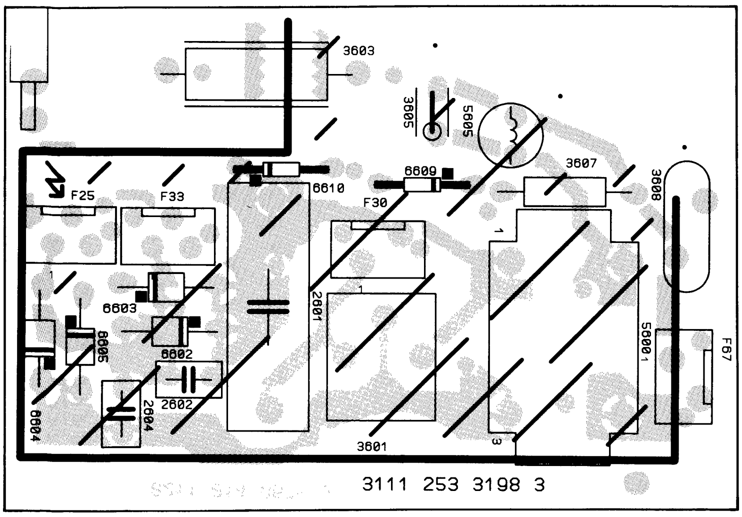
1060 SEPARATE CONTROL MODULE


menu
-
+
0041
0038
L
R
Video
0039
3248
3850
6201
6200
3202
3779
3776
3775
9200
3249
3234
3247
2233
3246
3200
6202
6203
2200
2203
2704
3241
2241
2240
K19
K27
3851
K44
3777
3111 253 3213 2
0726 2

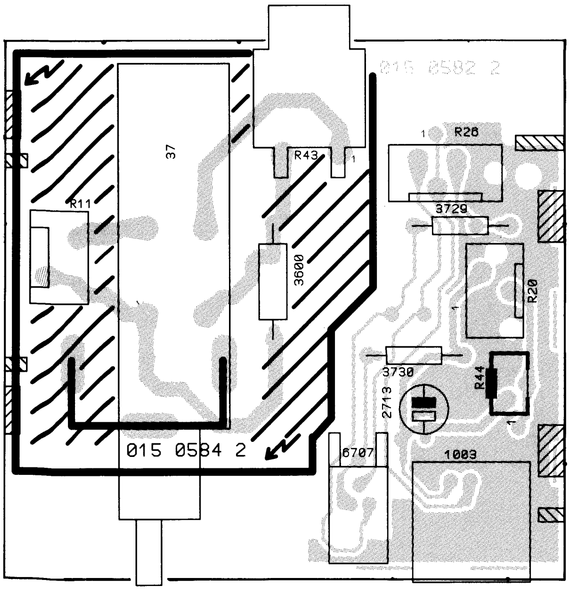
1060 SEPARATE CONTROL MODULE 29"


3777
9200
3851
3850
K19
2233
2234
3247
3249
3246
3248
2203
K27
2477
3202
6201
3200
2200
0038
L
R
6203
6202
6200

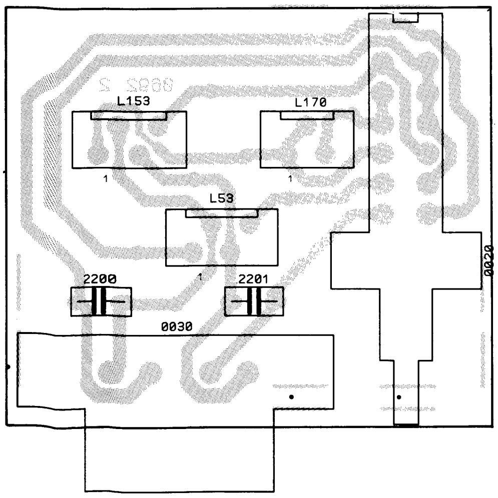
1002 MAINS FILTER MODULE


3603
3605
5605
3607
3608
6609
6610
F25
F33
F30
6603
6605
6602
2602
2004
6604
2001
3601
5001
F67
1
3
3111 253 3198 3

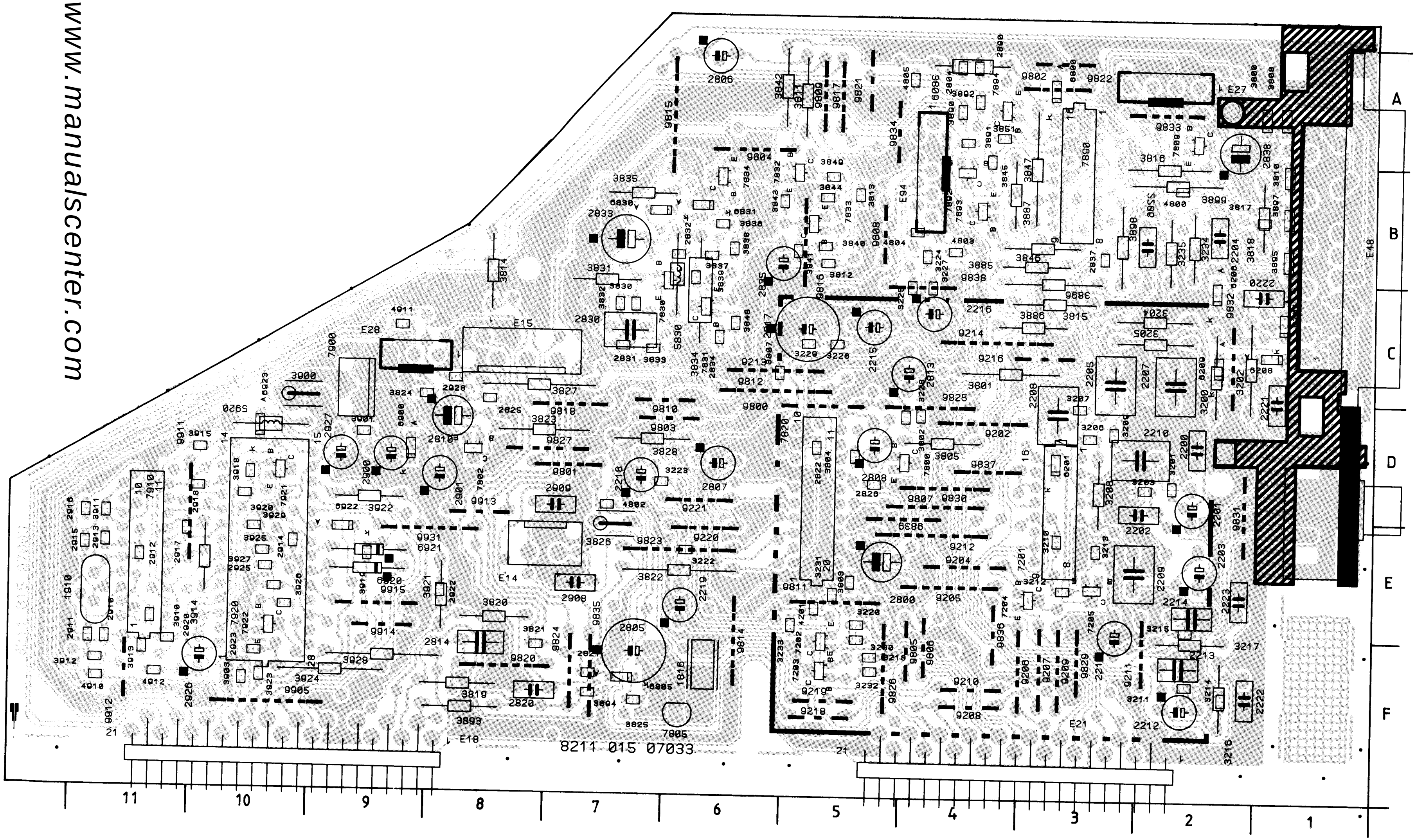
1050 SEPARATE MAINS MODULE


015 0582 2
R28
1
R43
37
R11
3729
R20
3600
3730
R44
2713
6707
1003
015 0584 2

1040 EXTERNAL LOUDSPEAKER MODULE

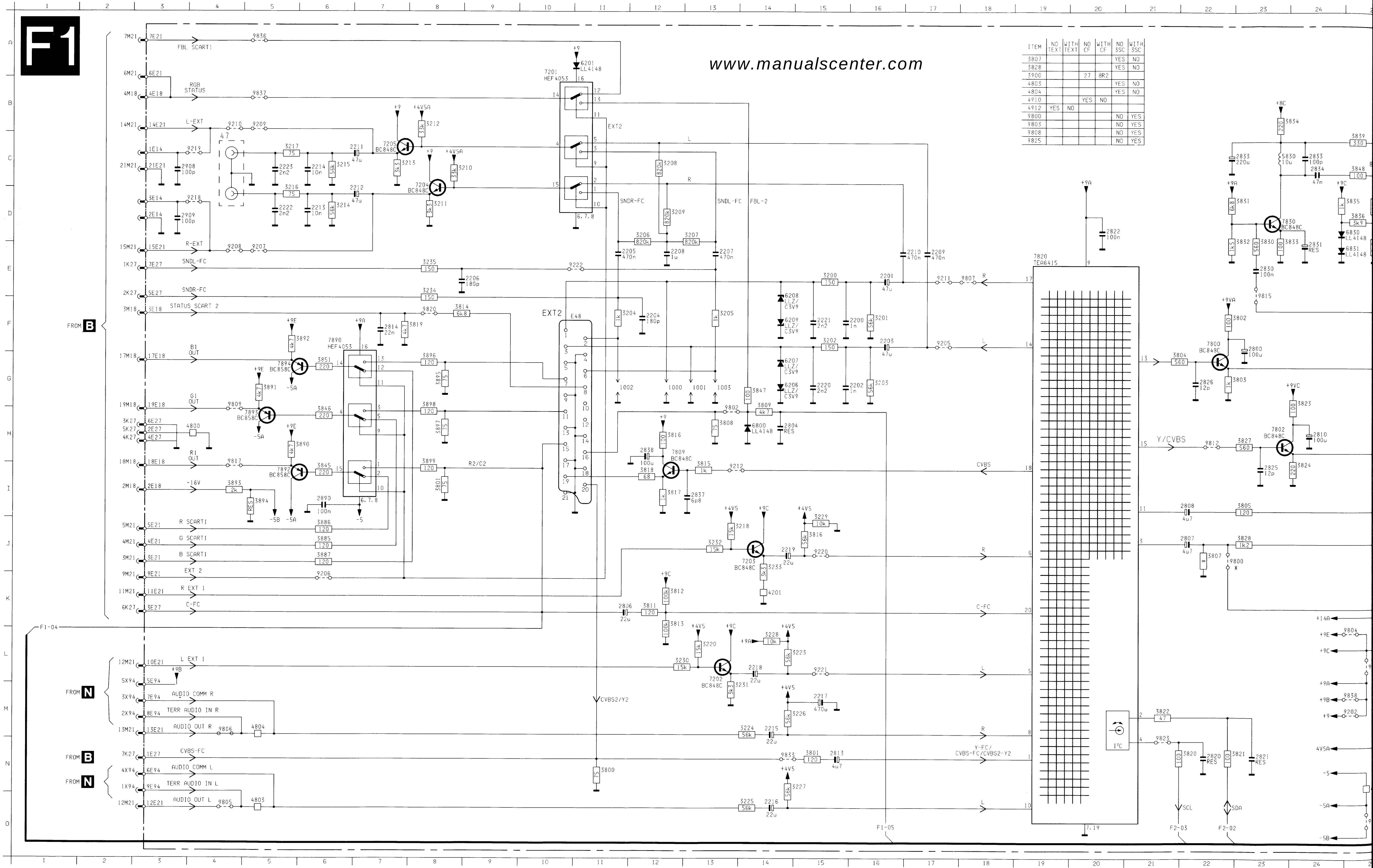

L153
L170
1
L53
2200
2201
0030
0020

1003 TELETEXT MODULE 4/3

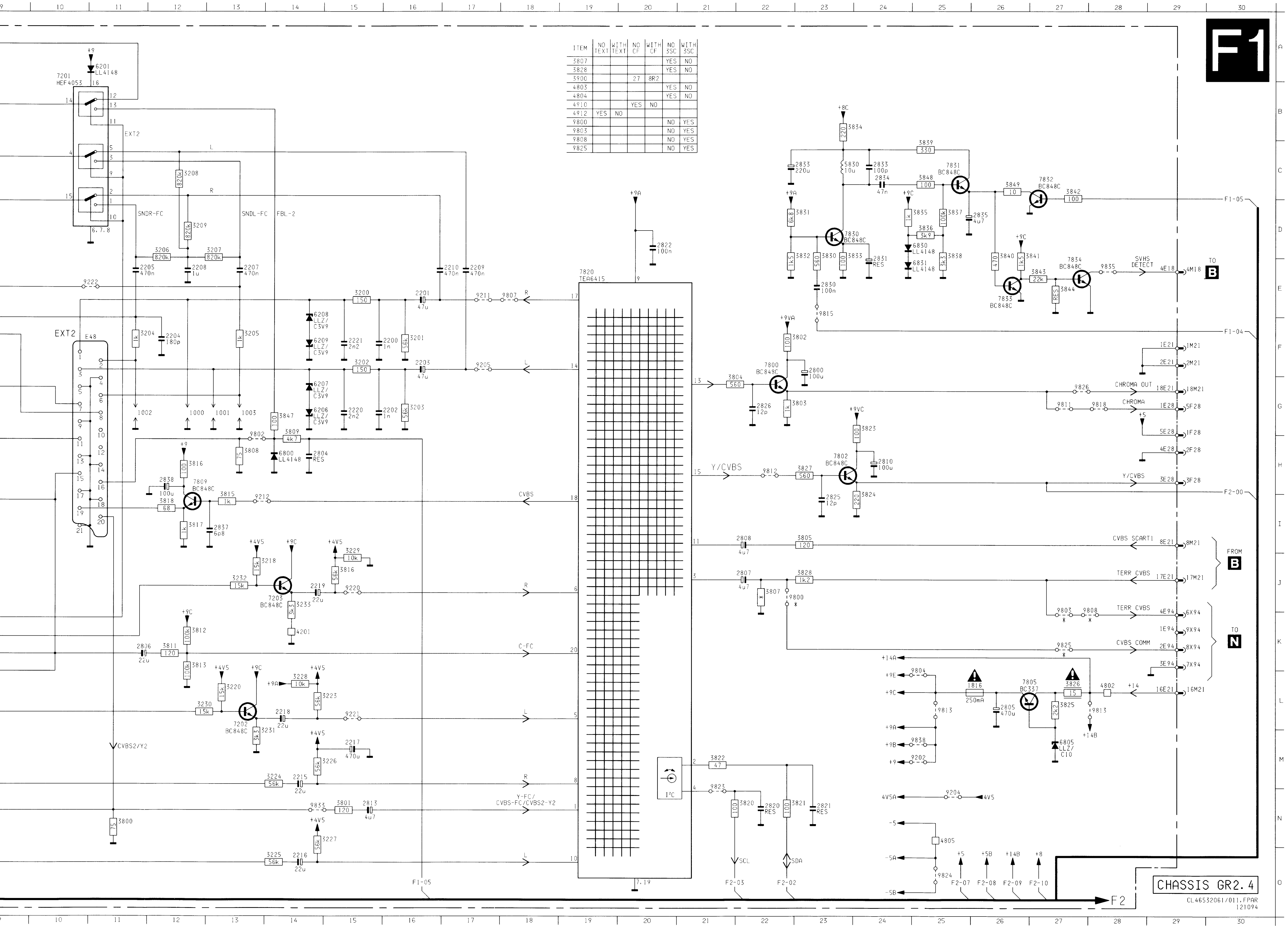


1000	C1
1001	C1
1002	C1
1003	C1
1816	F6
1910	E11
2200	D2
2201	E2
2202	E2
2203	E2
2204	B2
2205	D3
2206	B2
2207	D2
2208	D3
2209	E2
2210	D2
2211	F3
2212	F2
2213	F2
2214	F2
2215	C5
2216	C4
2217	C5
2218	D7
2219	F6
2220	C1
2221	D1
2222	F1
2223	E1
2800	E5
2804	A4
2805	F7
2807	D6
2808	D5
2810	D8
2813	D4
2814	F8
2820	F7
2821	F7
2822	D5
2825	D8
2826	D5
2830	C7
2831	C7
2832	C6
2833	B7
2834	C6
2835	C5
2837	C3
2838	B2
2890	A4
2900	D9
2901	D8
2908	E7
2909	E7
2910	F11
2911	F11
2912	E11
2913	E11
2914	E9
2915	E11
2916	E11
2917	E10
2918	E10
2920	F11
2922	E8
2923	F10
2925	E10
2926	F10
2927	D9
2928	D8
3200	C2
3201	D2
3202	C1
3203	D2
3204	C2
3205	C2
3206	D3
3207	D3
3208	E3
3209	D3
3210	E3
3211	F2
3212	E3
3213	E3
3214	F2
3215	F2
3216	F2
3217	F2
3218	F5
3220	F5
3222	E6
3223	D6
3224	C4
3225	C4
3226	C5
3227	C4
3228	D4
3229	C5
3230	F5
3231	E5
3232	F5
3233	F5
3234	B2
3235	B2
3800	A1
3801	C3
3802	D4
3803	E5
3804	D5
3805	D4
3807	D5
3808	A1
3809	A4
3810	B1
3811	A5
3812	C5
3813	B5
3814	C8
3815	C3
3816	B2
3817	B1
3818	B1
3819	F8
3820	F8
3821	F7
3822	E6
3823	D7
3824	D8
3825	F7
3826	E7
3827	D7
3828	D6
3830	C7
3831	C7
3832	C7
3833	C6
3834	C6
3835	B7
3836	B6
3837	C6
3838	B6
3839	C6
3840	B5
3841	C5
3842	A5
3843	B5
3844	B5
3845	B4
3846	B3
3847	B3
3848	C6
3849	B5
3851	B4
3885	C3
3886	C3
3887	B3
3890	A4
3891	B4
3892	A4
3893	F8
3894	F7
3895	C1
3896	C3
3897	B1
3898	B3
3899	B2
3900	D9
3901	D9
3903	F10
3910	F11
3911	E11
3912	F11
3913	F11
3914	E10
3915	D10
3918	D10
3919	E9
3920	E10
3921	E8
3922	E9
3923	F10
3924	F9
3925	E10
3926	F10
3927	E10
3928	F9
3929	E10
4201	F5
4800	B2
4802	E7
4803	B4
4804	B4
4805	A4
4910	F11
4911	C9
4912	F11
5830	C6
5920	D10
6201	D3
6206	C2
6207	C1
6208	C1
6209	C2
6800	A3
6805	F7
6830	B6
6831	B6
6900	D8
6920	E9
6921	E9
6922	E9
6923	D10
7201	E3
7202	F5
7203	F5
7204	E3
7205	E3
7800	D4
7802	D8
7805	F6
7809	B2
7820	E5
7830	C6
7831	C6
7832	B5
7833	B5
7834	B6
7890	B3
7892	B4
7893	B4
7894	A3
7900	D9
7910	E11
7920	E10
7921	D10
7922	F10
9202	D4
9204	E4
9205	E4
9206	F3
9207	F3
9208	F4
9209	F3
9210	F4
9211	F2
9212	E4
9213	D5
9214	C4
9216	C3
9218	F5
9219	F5
9220	E6
9221	E6
9800	D5
9801	D7
9802	A3
9803	D6
9804	B6
9805	F4
9806	F4
9807	E4
9808	B5
9809	A5
9810	D6
9811	E5
9812	D5
9814	F6
9815	A6
9816	B5
9817	A5
9818	D7
9820	F8
9821	A5
9822	A3
9823	E6
9824	F7
9825	D4
9826	F4
9827	D7
9829	F3
9830	D4
9831	E1
9832	C2
9833	A2
9834	A4
9835	F7
9836	F4
9837	D4
9838	C4
9839	E4
9905	F10
9911	E10
9912	F11
9913	E8
9914	F9
9915	F9
9931	E8
E14	E7
E15	C8
E18	G10
E21	G3
E27	A2
E28	C8
E48	C1
E94	B4

Teletext/Videotext/Télétexte

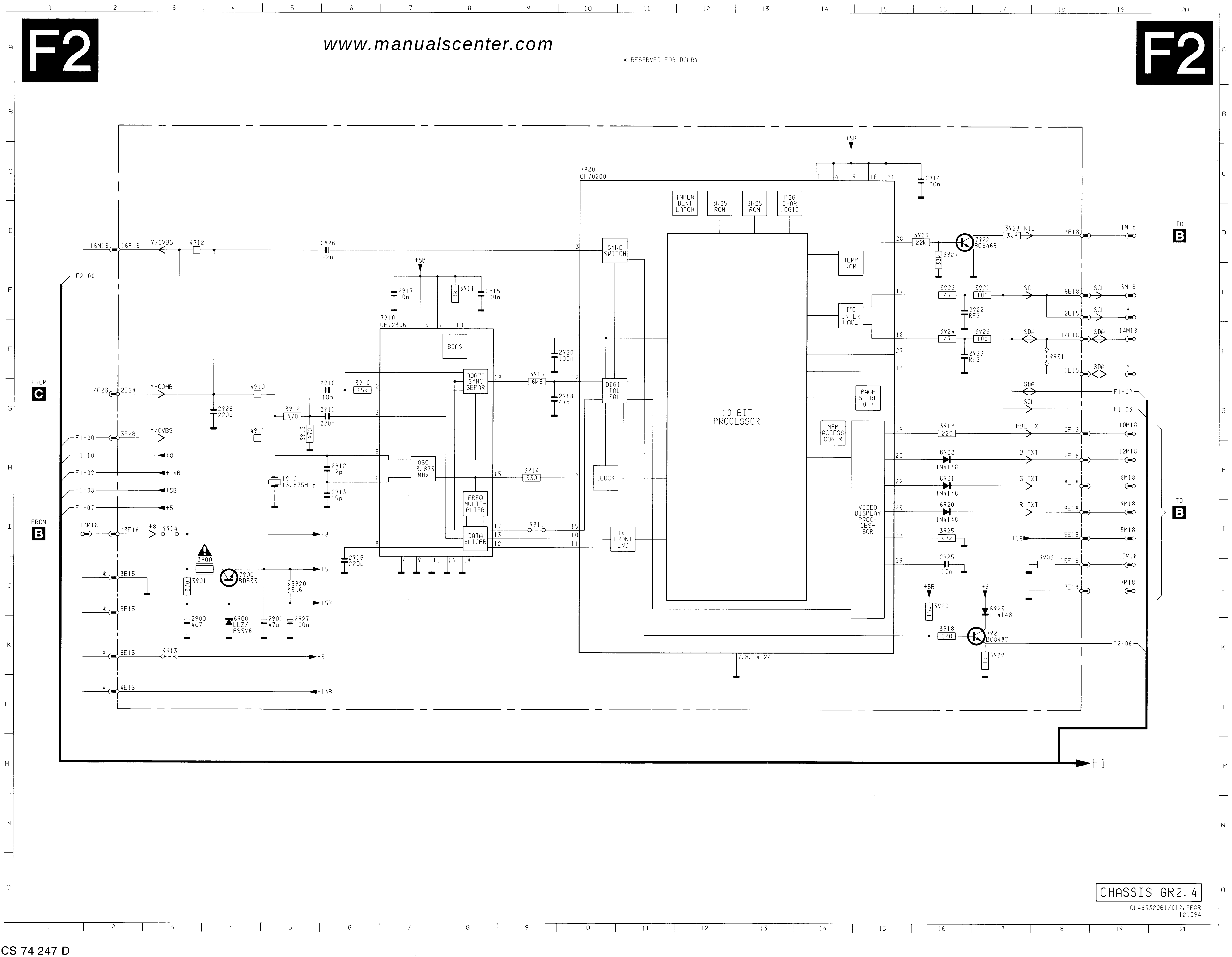

F1
www.manualscenter.com
FROM B
FROM N
FROM B
FROM N
FBL SCART1
RGB STATUS
L-EXT
R-EXT
SNDL-FC
SNDR-FC
STATUS SCART 2
B1 OUT
G1 OUT
R1 OUT
-16V
R SCART1
G SCART1
B SCART1
EXT 2
R EXT 1
C-FC
L EXT 1
AUDIO COMM R
TERR AUDIO IN R
AUDIO OUT R
CVBS-FC
AUDIO COMM L
TERR AUDIO IN L
AUDIO OUT L
7201 HEF4053
7890 HEF4053
EXT2
E48
7205 BC848C
7204 BC848C
7894 BC858C
7893 BC858C
7892 BC858C
7809 BC848C
7203 BC848C
7202 BC848C
7820 TEA6415
7800 BC848C
7802 BC848C
7830 BC848C
R2/C2
CVBS2/Y2
CVBS
Y/CVBS
Y-FC/ CVBS-FC/CVBS2-Y2
SNDR-FC
SNDL-FC
FBL-2
I²C
SCL
SDA
F1-04
F1-05
F2-03
F2-02
+14A
+9E
+9C
+9A
+9B
+9
4V5A
-5
-5A
-5B

ITEM	NO TEXT	WITH TEXT	NO CF	WITH CF	NO 3SC	WITH 3SC
3807					YES	NO
3828					YES	NO
3900			27	8R2		
4803					YES	NO
4804					YES	NO
4910			YES	NO		
4912	YES	NO				
9800					NO	YES
9803					NO	YES
9808					NO	YES
9825					NO	YES


F1
7201
HEF4053
6201
LL4148
EXT2
E48
SNDR-FC
SNDL-FC
FBL-2
7820
TEA6415
I²C
7800
BC848C
7802
BC848C
7805
BC337
7809
BC848C
7202
BC848C
7203
BC848C
7830
BC848C
7831
BC848C
7832
BC848C
7833
BC848C
7834
BC848C
1816
250mA
SVHS DETECT
CHROMA OUT
CHROMA
Y/CVBS
CVBS
C-FC
CVBS SCART1
TERR CVBS
CVBS COMM
Y-FC/
CVBS-FC/CVBS2-Y2
CVBS2/Y2
TO
B
FROM
B
TO
N
SCL
SDA
F1-05
F1-04
F2-00
F2-02
F2-03
F2-07
F2-08
F2-09
F2-10
F2
CHASSIS GR2.4
CL 46532061/011.FPAR
121094

ITEM	NO TEXT	WITH TEXT	NO CF	WITH CF	NO 3SC	WITH 3SC
3807					YES	NO
3828					YES	NO
3900			27	8R2		
4803					YES	NO
4804					YES	NO
4910			YES	NO		
4912	YES	NO				
9800					NO	YES
9803					NO	YES
9808					NO	YES
9825					NO	YES

1000	G12	3828	J23
1001	G13	3830	D23
1002	G11	3831	D23
1003	G13	3832	D23
1816	L26	3833	D23
2200	F16	3834	B23
2201	E16	3835	D25
2202	G16	3836	D25
2203	F16	3837	D25
2204	F12	3838	D25
2205	E11	3839	C25
2206	E 9	3840	D26
2207	E13	3841	D26
2208	E12	3842	C27
2209	E17	3843	E27
2210	E17	3844	E27
2211	C 7	3845	I 6
2212	D 7	3846	H 6
2213	D 6	3847	G14
2214	C 6	3848	C25
2215	M14	3849	C26
2216	O14	3851	G 6
2217	M15	3885	J 6
2218	L14	3886	J 6
2219	J14	3887	J 6
2220	G15	3890	H 5
2221	F15	3891	G 5
2222	D 5	3892	F 5
2223	C 5	3893	I 4
2800	F23	3894	I 5
2804	H14	3895	G 8
2805	L26	3896	G 8
2806	K11	3897	H 8
2807	J22	3898	G 8
2808	I22	3899	I 8
2810	H24	4201	K14
2813	N15	47	C 4
2814	F 7	4802	L28
2820	N22	4803	O 5
2821	N23	4804	M 5
2822	D20	4805	N25
2825	I23	5830	C23
2826	G22	6201	A11
2830	E23	6206	G14
2830	E23	6207	G14
2831	E24	6208	F14
2833	C23	6209	F14
2833	C24	6800	H14
2834	C24	6805	M27
2835	D26	6830	D25
2837	I13	6831	E25
2838	H12	7201	A10
2890	I 6	7202	L13
2908	C 3	7203	J14
2909	D 3	7204	D 8
3200	E15	7205	C 7
3201	F16	7800	F22
3202	F15	7802	H23
3203	G16	7805	L26
3204	F11	7809	H12
3205	F13	7820	E19
3206	D12	7830	D23
3207	D13	7831	C25
3208	C12	7832	C27
3209	D12	7833	E26
3210	C 8	7834	E27
3211	D 8	7890	F 6
3212	B 8	7892	I 5
3213	C 7	7893	H 5
3214	D 6	7894	G 5
3215	C 6	9202	M25
3216	D 5	9204	N25
3217	C 5	9205	F17
3218	J13	9206	K 6
3220	L13	9207	E 5
3223	L14	9208	E 4
3224	M14	9209	B 5
3225	O14	9210	B 4
3226	M14	9211	E17
3227	N14	9212	I13
3228	L14	9218	D 4
3229	J15	9219	C 4
3230	L12	9220	J15
3231	L13	9221	L15
3232	J13	9222	E11
3233	J14	9800	J22
3234	E 8	9802	H13
3235	E 8	9803	K27
3800	N11	9804	L25
3801	I 8	9805	O 4
3801	N15	9806	M 4
3802	F22	9807	E18
3803	G22	9808	K28
3804	G21	9809	H 4
3805	I23	9811	G27
3807	J22	9812	H22
3808	H13	9813	L25
3809	G14	9813	L28
3811	K12	9815	E23
3812	K12	9817	I 4
3813	K12	9818	G28
3814	F 8	9820	F 8
3815	I13	9823	N21
3816	H12	9824	O25
3816	J15	9825	K27
3817	I12	9826	G27
3818	I12	9833	N14
3819	F 8	9835	E28
3820	N22	9836	A 5
3821	N22	9837	B 5
3822	M21	9838	M25
3823	G24	E48	F11
3824	H24		
3825	L27		
3826	L27		
3827	H23		


F2
www.manualscenter.com
* RESERVED FOR DOLBY
7920
CF70200
INPEN DENT LATCH
3k25 ROM
3k25 ROM
P26 CHAR LOGIC
SYNC SWITCH
TEMP RAM
I²C INTER FACE
DIGI-TAL PAL
10 BIT PROCESSOR
PAGE STORE 0-7
MEM ACCESS CONTR
CLOCK
TXT FRONT END
VIDEO DISPLAY PROC-CES-SOR
7910
CF72306
BIAS
ADAPT SYNC SEPAR
OSC 13.875 MHz
FREQ MULTI-PLIER
DATA SLICER
1910
13.875MHz
7922
BC846B
7921
BC848C
7900
BD533
6900
LLZ/F5SV6
6920 1N4148
6921 1N4148
6922 1N4148
6923 LL4148
Y/CVBS
Y-COMB
FBL TXT
B TXT
G TXT
R TXT
SCL
SDA
+5B
+8
+14B
+5
FROM C
FROM B
TO B
F2-06
F1-00
F1-10
F1-09
F1-08
F1-07
F1-02
F1-03
F1
CHASSIS GR2.4
CL46532061/012.FPAR
121094

1910	H 5	A
2900	K 3	
2901	K 5	
2910	G 6	
2911	G 6	
2912	H 6	
2913	H 6	
2914	C16	
2915	E 8	
2916	J 6	B
2917	E 7	
2918	G 9	
2920	F 9	
2922	E17	
2925	J17	
2926	D 6	
2927	K 5	C
2928	G 3	
2933	F17	
3900	J 4	
3901	J 3	
3903	J18	
3910	G 6	
3911	E 8	
3912	G 5	D
3913	G 5	
3914	H 9	
3915	F 9	
3918	K17	
3919	G17	
3920	J16	
3921	E17	E
3922	E17	
3923	F17	
3924	F17	
3925	I17	
3926	D16	
3927	D16	
3928	D18	
3929	K17	F
4910	G 4	
4911	G 4	
4912	D 3	
5920	J 5	
6900	K 4	
6920	I17	
6921	H17	G
6922	H17	
6923	J17	
7900	J 4	
7910	F 6	
7920	C10	
7921	K17	
7922	D17	
9911	I 9	H
9913	K 3	
9914	I 3	
9931	F18	

Videotext

Der Videotext-Dekoder ist

Der Videotext-Dekoder ka
verarbeiten:

- World Teletext System
- BBC System: FLOF (F
- Deutsches System: T

Zur Verkürzung der Warte
Seiten speichern.
Die Speicherkapazität rich

* WST mit Seiten ohne
die zuletzt erhaltene S

* WST mit Seiten mit Su
Sub-Seite, folgende +1
Seite + Inhaltsliste.

* FLOF: 4 Seiten an die
gelb, blau), Seite -1, z

* TOP: Basis-Top-Tabell
Gruppen, 2 oder 3 folg

"Page Look Up Table" (PL
Einschalten der 3 Systeme
PLUT sorgt dafür, daß nur
Speicher aufgenommen w

Der Videotext-Schaltkre

- IC 7910: Teletext Data
- IC 7920: Universal Tel

Der Videotext Data-Slic

IC CF 72306 sorgt für:
- Sync.-Trennung
- Videotext-Datenverarb
- Datum Zeit Regenerati
- Übertragung von Zeit,
  zum digitalen Videotex

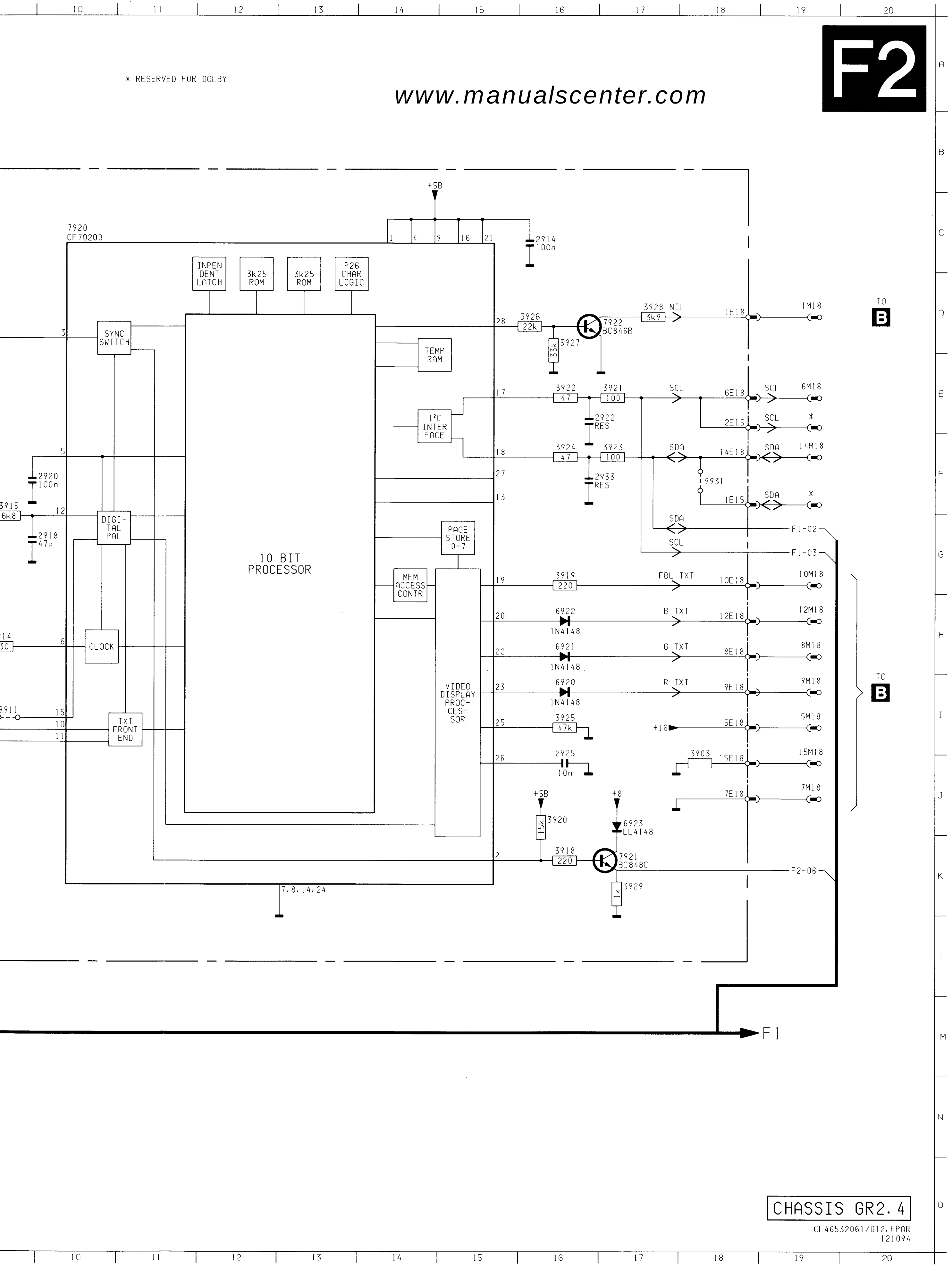
Der Sync.-Separator Slicin
daß er eine Serie von Vide
Signalen verarbeiten kann

Der Data-Slicer arbeitet mi
und Taktphasen Algorithm
Gebiet von Takteinlauf-Am

- Das IC hat 3 Video-Ein
  für die Sync-Verarbeitu
  Videotext-Information
  Widerstand 3910 bilde
  Entfernen der hohen F
  Widerstände R 3912,
  Niveaus von 2V nach

Von der Oszillatorfrequenz
Videotext-Zeitangabe von

Über C2916 wird auf Pin 8
gespeichert.
Um im IC alle Signale vera
"Frequency Multiplier" die


F2
* RESERVED FOR DOLBY
www.manualscenter.com
7920
CF70200
INPEN DENT LATCH
3k25 ROM
3k25 ROM
P26 CHAR LOGIC
SYNC SWITCH
TEMP RAM
I²C INTER FACE
DIGI-TAL PAL
10 BIT PROCESSOR
PAGE STORE 0-7
MEM ACCESS CONTR
CLOCK
VIDEO DISPLAY PROC-CES-SOR
TXT FRONT END
+5B
2914 100n
2920 100n
2918 47p
3915 6k8
3926 22k
3927 33k
7922 BC846B
3928 NIL 3k9
3922 47
3921 100
2922 RES
3924 47
3923 100
2933 RES
9931
SCL
SDA
3919 220
FBL TXT
6922 1N4148
B TXT
6921 1N4148
G TXT
6920 1N4148
R TXT
3925 47k
+16
2925 10n
3903
3920 15k
+8
6923 LL4148
3918 220
7921 BC848C
3929 1k
7.8.14.24
1E18
1M18
6E18
6M18
2E15
14E18
14M18
1E15
F1-02
F1-03
10E18
10M18
12E18
12M18
8E18
8M18
9E18
9M18
5E18
5M18
15E18
15M18
7E18
7M18
F2-06
TO B
F1
CHASSIS GR2.4
CL46532061/012.FPAR
121094

1910	H 5
2900	K 3
2901	K 5
2910	G 6
2911	G 6
2912	H 6
2913	H 6
2914	C16
2915	E 8
2916	J 6
2917	E 7
2918	G 9
2920	F 9
2922	E17
2925	J17
2926	D 6
2927	K 5
2928	G 3
2933	F17
3900	J 4
3901	J 3
3903	J18
3910	G 6
3911	E 8
3912	G 5
3913	G 5
3914	H 9
3915	F 9
3918	K17
3919	G17
3920	J16
3921	E17
3922	E17
3923	F17
3924	F17
3925	I17
3926	D16
3927	D16
3928	D18
3929	K17
4910	G 4
4911	G 4
4912	D 3
5920	J 5
6900	K 4
6920	I17
6921	H17
6922	H17
6923	J17
7900	J 4
7910	F 6
7920	C10
7921	K17
7922	D17
9911	I 9
9913	K 3
9914	I 3
9931	F18

Videotext

Der Videotext-Dekoder ist in das Euro-Modul integriert.

Der Videotext-Dekoder kann die folgenden Systeme verarbeiten:

- World Teletext System (WST)
- BBC System: FLOF (Full Level one Feature)
- Deutsches System: TOP (Table of Pages)

Zur Verkürzung der Wartezeit kann der Videotext-Dekoder 8 Seiten speichern.
Die Speicherkapazität richtet sich nach dem System.

* WST mit Seiten ohne Sub-Kodes: Seite -1, +1, +2, +3 +4, die zuletzt erhaltene Seite, Inhaltstabelle + gezeigte Seite.

* WST mit Seiten mit Sub-Kodes: Seite -1, +1, +2, folgende Sub-Seite, folgende +1 Sub-Seite, die zuletzt erhaltene Seite + Inhaltsliste.

* FLOF: 4 Seiten an die farbigen Tasten verbunden (rot, grün, gelb, blau), Seite -1, zuletzt gezeigte Seite und Inhaltsliste.

* TOP: Basis-Top-Tabelle, Seite +1, 1 oder 2 folgende Gruppen, 2 oder 3 folgende Blöcke oder Seite +1, +2.

"Page Look Up Table" (PLUT) wird unmittelbar nach dem Einschalten der 3 Systeme aufgebaut.
PLUT sorgt dafür, daß nur die ausgestrahlten Seiten in den Speicher aufgenommen werden.

Der Videotext-Schaltkreis besteht aus 2 ICs:

- IC 7910: Teletext Data Slicer: CF 72306
- IC 7920: Universal Teletext-Dekoder: "Eurotext": CF 70200.

Der Videotext Data-Slicer: CF 72306

IC CF 72306 sorgt für:
- Sync.-Trennung
- Videotext-Datenverarbeitung
- Datum Zeit Regeneration
- Übertragung von Zeit, Datum und Doppel-Sync.-Signalen zum digitalen Videotext-Dekoder IC.

Der Sync.-Separator Slicing-Pegel kann angepaßt werden, so daß er eine Serie von Video-Amplituden und gestörten Signalen verarbeiten kann.

Der Data-Slicer arbeitet mit einer anpaßbaren Signalerkennung und Taktphasen Algorithmus, so daß er in einem breiten Gebiet von Takteinlauf-Amplituden arbeiten kann.

- Das IC hat 3 Video-Eingänge (Pin 1, 2, 3). Pin 1, 2 werden für die Sync-Verarbeitung benutzt und mit Pin 3 wird die Videotext-Information aus dem Video geholt.
  Widerstand 3910 bildet LDF mit Kapazität im IC für das Entfernen der hohen Frequenzen auf dem Sync.-Niveau.
  Widerstände R 3912, R 3913 sind eine Anpassung des Niveaus von 2V nach IV pp.

Von der Oszillatorfrequenz 13.875MHZ wird die Videotext-Zeitangabe von 6,937MHz abgeleitet.

Über C2916 wird auf Pin 8 (C REF) das Schwarz-Niveau gespeichert.
Um im IC alle Signale verarbeiten zu können, wird über einen "Frequency Multiplier" die Frequenz auf 69 MHz erhöht.

Das "OSCOUT" (Pin 15) leitet die 13,875 MHz zum Videotext-Dekoder weiter.
Zur Vermeidung von Strahlung in den MF-Teil ist R 3914 vorhanden.
Während des VBi wird über "WIND" der Data-Slicer aktiviert, so daß die Videotext-Daten zu Pin 13 übermittelt werden können.

Das Sync.-Signal (Pin 19) wird über LDF-Filter (R3915, C2918) nach Pin 12 Videotext-Dekoder geschickt.

Universal Videotext Dekoder "Eurotext": CF 70200

Digitales IC zum Dekodieren der Weltstandardsysteme:
- 8 Seiten Speicher
- automatische WST, FLOF oder TOP Detektion
- Programm 26 flackerfreie Schriftverarbeitung

Bei den Eingängen 10, 11, 12 wird den TDATA, T.CIK eine Sync.-Kombination vom Data-Slicer angeboten.
Das IC ist über 16 (Data) und 17 (Zeitgeber) an die I^{2}C Verbindung angeschlossen.

Über die Markierung 2 (28) wird das NIL-Signal angeboten, um das Flackern des Textes auf dem Bildschirm zu vermeiden.

Die Rückeinschaltung erfolgt über C 2920 auf Pin 5.

Über Dioden 6920, 6921, 6922 werden die RGB-Ausgänge zusammen mit dem Blanking-Signal (Pin 19) zum TDA 4780 geschickt.

Die Dioden verhindern ein "Blooming" des Textes und sorgen auch dafür, daß das OSD-Niveau nicht nach unten gezogen wird.

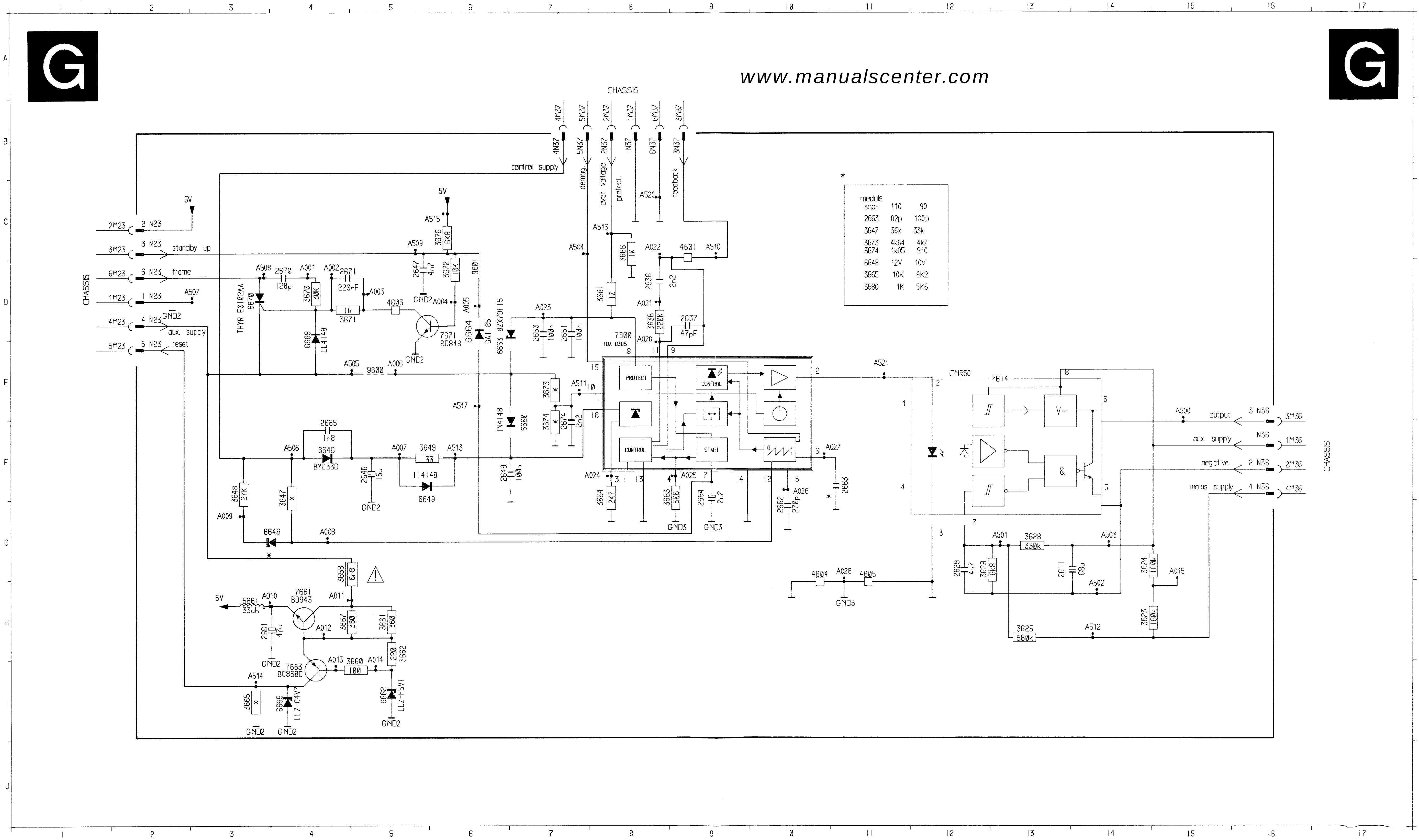
Die Amplitude der Ausgangssignale wird von C 2925 (REF) und R 3925 (RGB Gerät) bestimmt.

Pin 2 (Sync. von CSB) ist der Ausgang des inneren Schalters, der entweder das kombinierte Sync.-Signal des inneren Sync.-Generators, oder den Video-Eingang weiterschaltet, wenn die betreffende Bildinformation gezeigt wird (mixed Modus - Untertitelung).

Über den Zeitgeber von Pin 6 werden 13,875 MHZ vom Data-Slicer empfangen.
Über PLL werden die Impulse des Videotext-Dekoders auf dem Sync. des Videosignals synchronisiert.
Im IC ist ein Charaktergenerator vorhanden.
Das innere ROM verwaltet die Dekodierung und die Anzeigeselektion.
Im inneren RAM können 8 Seiten gespeichert werden.

Sops controle module

2611	G13
2629	G12
2636	D 8
2637	D 9
2646	F 5
2647	D 5
2649	F 6
2650	D 7
2651	D 7
2661	H 3
2662	G10
2663	F11
2664	F 9
2665	F 4
2670	D 4
2671	D 4
2674	F 7
3623	H14
3624	G14
3625	H13
3628	G13
3629	G12
3636	D 8
3647	F 4
3648	F 3
3649	F 5
3658	G 4
3660	I 5
3661	H 5
3662	H 5
3663	F 8
3664	F 8
3665	I 3
3666	C 8
3667	H 4
3670	D 4
3671	D 4
3672	D 6
3673	E 7
3674	F 7
3676	C 6
3680	I10
3681	D 8
4601	C 9
4603	D 5
4604	G10
4605	G11
5661	H 3
6646	F 4
6648	G 4
6649	G 5
6660	F 7
6662	I 5
6663	E 6
6664	D 6
6665	I 4
6669	D 4
6670	D 3
7600	D 8
7614	E14
7661	H 4
7663	I 4
7671	D 6
9600	E 5
9601	D 6
A001	D 4
A002	D 4
A003	D 5
A004	D 6
A005	D 6
A006	E 5
A007	F 5
A008	G 4
A009	G 3
A010	H 3
A011	H 4
A012	H 4
A013	I 4
A014	I 5
A015	G15
A020	E 8
A021	D 8
A022	C 8
A023	D 7
A024	F 8
A025	F 9
A026	F10
A027	F11
A028	G11
A500	E15
A501	G13
A502	H14
A503	G14
A504	C 7
A505	E 5
A506	F 4
A507	D 3
A508	D 3
A509	C 5
A510	C 9
A511	E 7
A512	H14
A513	F 6
A514	I 3
A515	C 6
A516	C 8
A517	E 6
A518	I10
A519	I10
A520	C 8
A521	E11
N23	D 2
N23	C 2
N23	C 2
N23	D 2
N23	E 2
N23	D 2
N36	F16
N36	F16
N36	E16
N36	F16
N37	B 8
N37	B 8
N37	B 9
N37	B 7
N37	B 7
N37	B 8

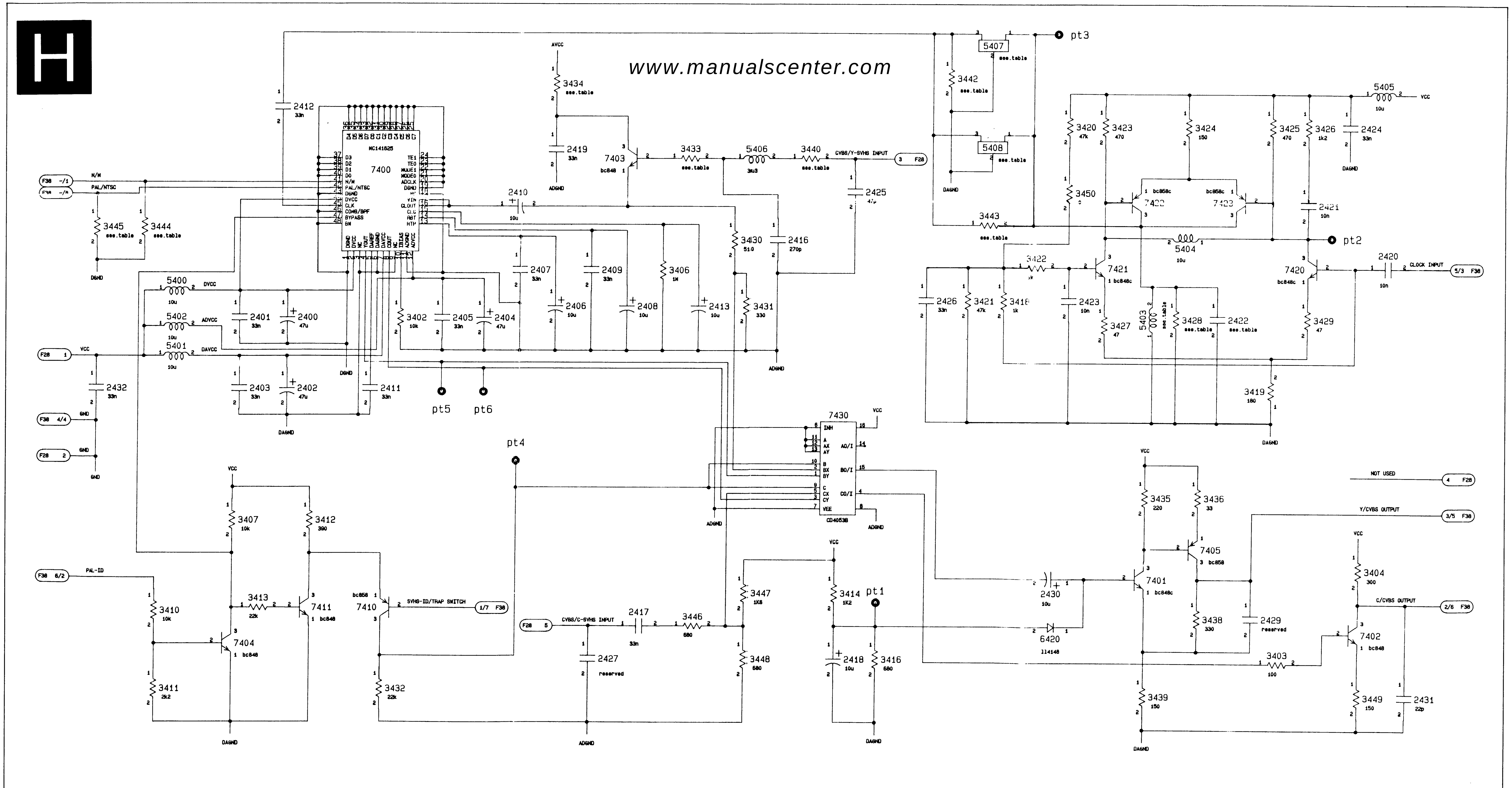

G
G
CHASSIS
4M37
5M37
2M37
1M37
6M37
3M37
4N37
5N37
2N37
1N37
6N37
3N37
control supply
demag.
over voltage
protect.
feedback
2M23
3M23
6M23
1M23
4M23
5M23
2 N23
3 N23 standby up
6 N23 frame
1 N23
4 N23 aux. supply
5 N23 reset
GND2
5V
THYR E0102AA
6670
2670 120p
3670 30K
2671 220nF
3671 1k
4603
6669 LL4148
2647 4n7
3672 10K
3676 6K8
9601
7671 BC848
6664 BAT 85
6663 BZX79F15
2650 100n
2651 100n
3681 10
3666 1K
7600 TDA 8385
2636 2n2
4601
3636 220K
2637 47pF
PROTECT
CONTROL
START
9600
3673
3674
2674 2n2
IN4148
6660
2665 1n8
6646 BYD33D
2646 15u
3649 33
1I4148
6649
2649 100n
3648 27K
3647
6648
3664 2K7
3663 5K6
2664 2u2
2662 270p
2663
GND3
3658 6R8
5661 33uh
2661 47u
7661 BD943
3667 360
3661 360
7663 BC858C
3660 100
3662 220
3665
6665 LLZ-C4V7
6662 LLZ-F5V1
CNR50
7614
V=
&
output 3 N36
aux. supply 1 N36
negative 2 N36
mains supply 4 N36
3M36
1M36
2M36
4M36
4604
4605
3628 330k
2629 4n7
3629 6K8
2611 68u
3624 160k
3623 160k
3625 560k
A001
A002
A003
A004
A005
A006
A007
A008
A009
A010
A011
A012
A013
A014
A015
A020
A021
A022
A023
A024
A025
A026
A027
A028
A500
A501
A502
A503
A504
A505
A506
A507
A508
A509
A510
A511
A512
A513
A514
A515
A516
A517
A520
A521
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
A
B
C
D
E
F
G
H
I
J

*

module sops	110	90
2663	82p	100p
3647	36k	33k
3673	4k64	4k7
3674	1k05	910
6648	12V	10V
3665	10K	8K2
3680	1K	5K6

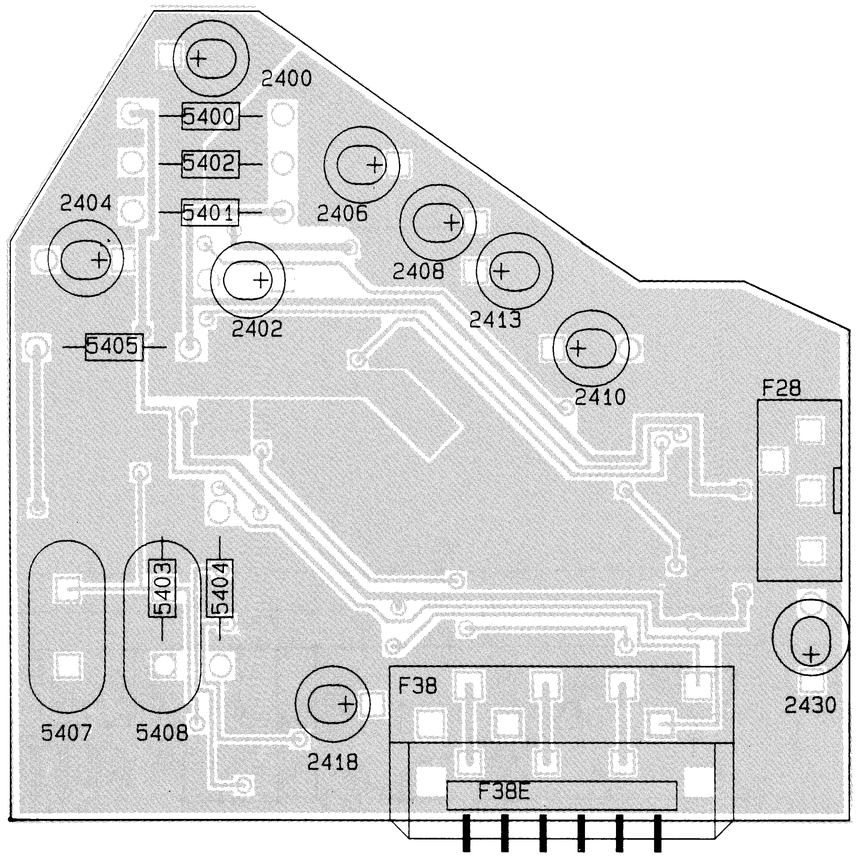
PCS 74 248

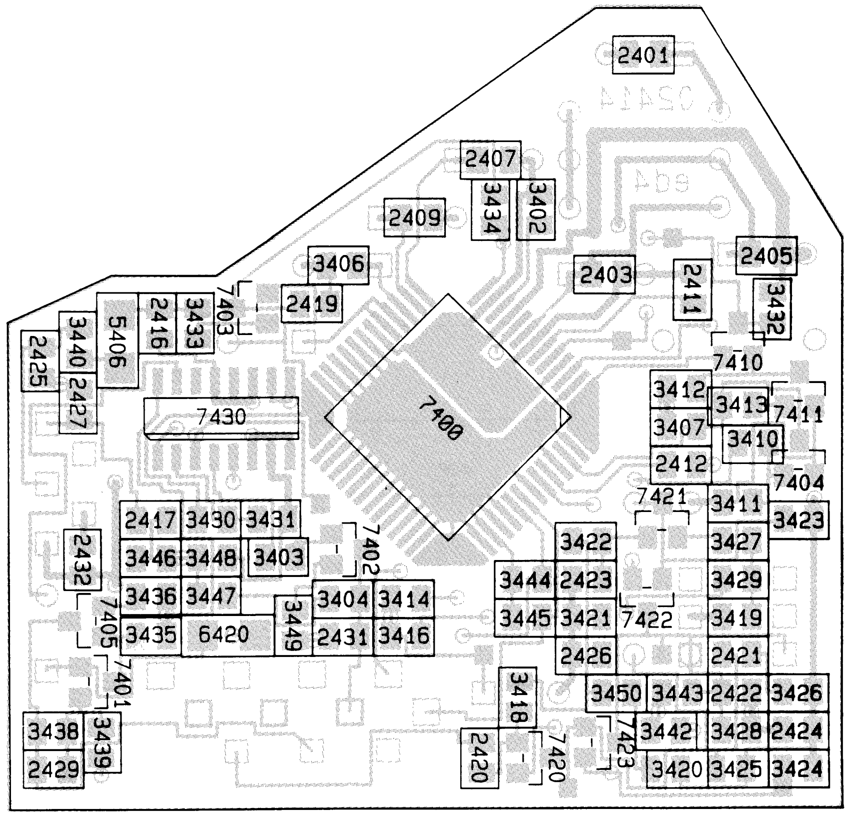
Comb filter module


H
pt3
pt2
pt1
pt4
pt5
pt6
7400
MC141625
7403
bc848
7430
CD4053B
7421
7420
7422
7423
7401
7405
7402
7404
7411
7410
5407
5408
5405
5404
5406
5400
5402
5401
5403
3434
see.table
3433
3440
3442
3443
3444
3445
3420
3423
3424
3425
3426
3450
3422
3421
3418
3427
3428
3429
3419
3430
3431
3406
3402
3407
3412
3413
3410
3411
3432
3446
3447
3448
3414
3416
3435
3436
3438
3439
3403
3404
3449
2412
2419
2410
2425
2416
2407
2409
2406
2408
2413
2401
2400
2405
2404
2403
2402
2411
2432
2424
2421
2420
2426
2423
2422
2417
2427
2418
2430
6420
2429
2431
AVCC
VCC
DGND
DAGND
ADGND
DVCC
ADVCC
DAVCC
GND
N/M
PAL/NTSC
PAL-ID
CVBS/Y-SVHS INPUT
CVBS/C-SVHS INPUT
SVHS-ID/TRAP SWITCH
CLOCK INPUT
NOT USED
Y/CVBS OUTPUT
C/CVBS OUTPUT
reserved
F38
F28

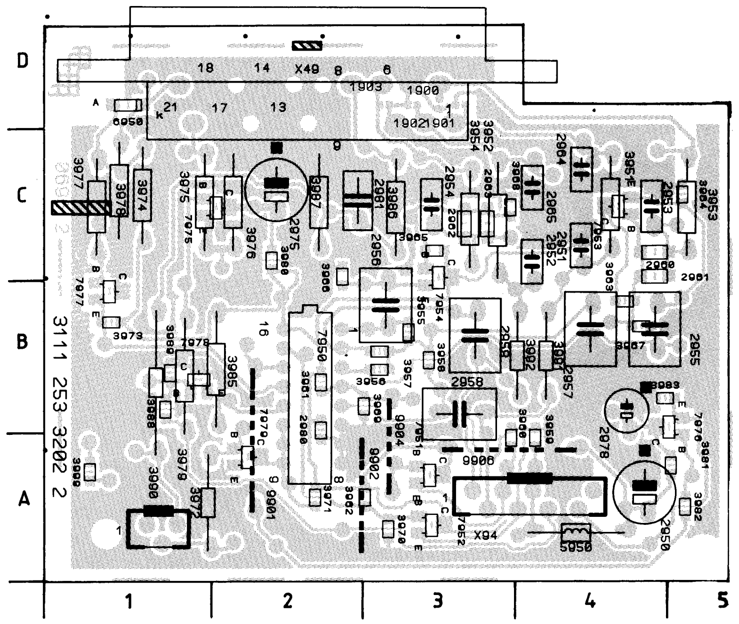
	COMPONENTS												CONNECTOR F38	12 NC NUMBER
	2422	3428	5403	3443	3442	5407	5408	3444	3445	3440	3433	3434	standar ver / overseas ver	
STANDARD VERSION :	100p	820	0.68u	0	-	-	-	0	0	100	220	220	- 6 5 4 3 2 1 -	3111 258 02050
OVERSEAS VERSION :	-	240	-	-	-	SFE14-3	SFE17-7	-	-	120	47	0	1 2 3 4 5 6 7 8	3111 258 00250

Comb filter module


2400
5400
5402
5401
2404
2406
2408
2413
2402
5405
2410
F28
5403
5404
2430
F38
5407
5408
2418
F38E


2401
2407
3434
3402
2409
3406
2403
2405
2411
3432
7403
2419
2425
3440
5406
2416
3433
2427
7430
7400
7410
3412
3413
7411
3407
3410
2412
7404
7421
3411
3423
2417
3430
3431
2432
3446
3448
3403
7402
3422
3427
3436
3447
3404
3414
3444
2423
3429
7405
3435
6420
3449
2431
3416
3445
3421
7422
3419
7401
2426
2421
3418
3450
3443
2422
3426
3438
3439
7420
7423
3442
3428
2424
2429
2420
3420
3425
3424

Third scart module 1006

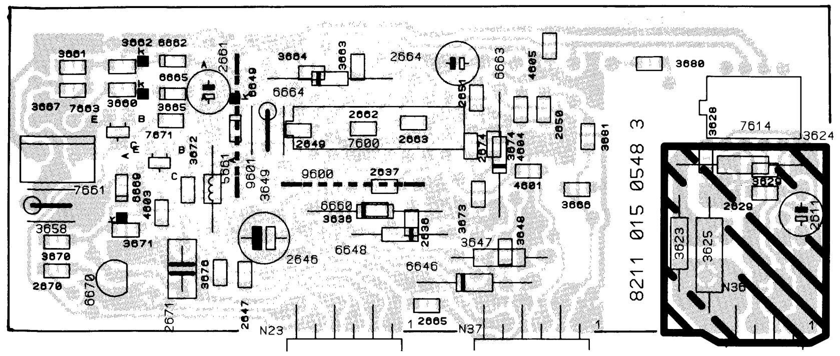

D
C
B
A
1
2
3
4
5
3111 253 3202 2
X49
X94
1900
1901
1902
1903
7950
6950

1900	D3
1901	D3
1902	D3
1903	D3
2950	A4
2951	C4
2952	C4
2953	C5
2954	C3
2955	B5
2956	B3
2957	B4
2958	B3
2959	B3
2960	C5
2961	C5
2962	C3
2963	C3
2964	C4
2965	C4
2975	C2
2978	B4
2980	B2
2981	C3
3951	C4
3952	C3
3953	C5
3954	C3
3955	B3
3956	B3
3957	B3
3958	B3
3959	B4
3960	B4
3961	B2
3962	A3
3963	B4
3964	C5
3965	C3
3966	C2
3967	B4
3968	C4
3969	B3
3970	A3
3971	A2
3972	A2
3973	B1
3974	C1
3975	C2
3976	C2
3977	C1
3978	C1
3979	B1
3980	C2
3981	A5
3982	A5
3983	B5
3985	B2
3986	C3
3987	C2
3988	B1
3989	B1
3990	B1
3991	B4
3992	B4
5950	A4
6950	D1
7950	B2
7951	A3
7952	A3
7953	C4
7954	C3
7975	C2
7976	B5
7977	B1
7978	B2
7979	A2
9901	B2
9902	A3
9904	A3
9906	A4
X31	A1
X49	D3
X94	A4

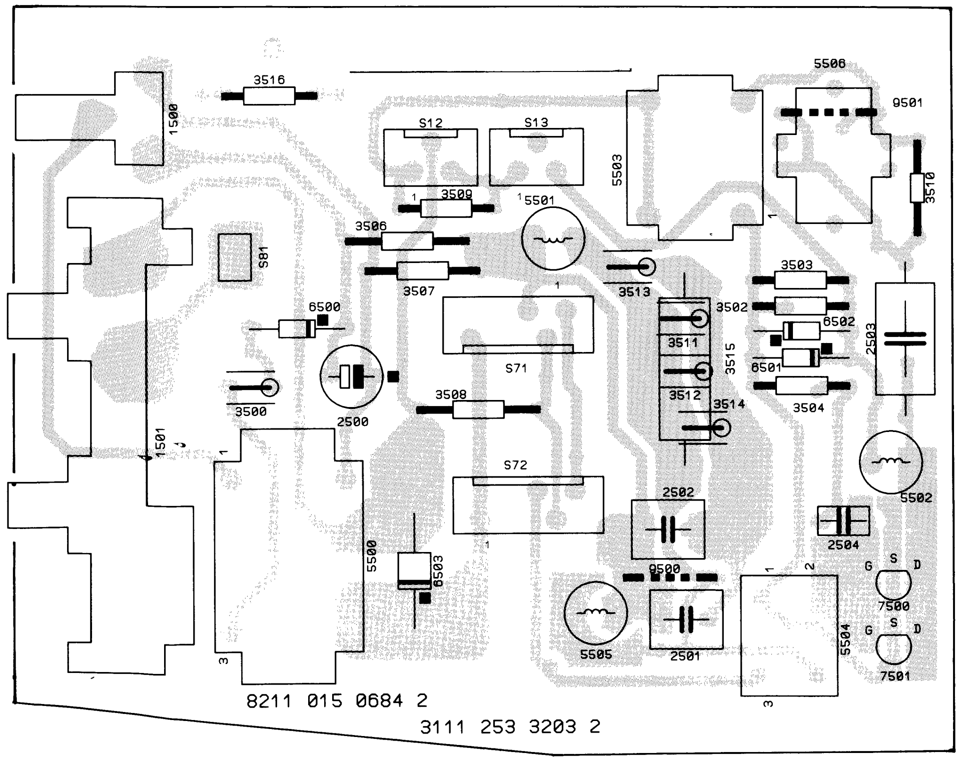
www.manualscenter.com

Sops controle module/Scanning module

SOPS CONTROLE MODULE 1007

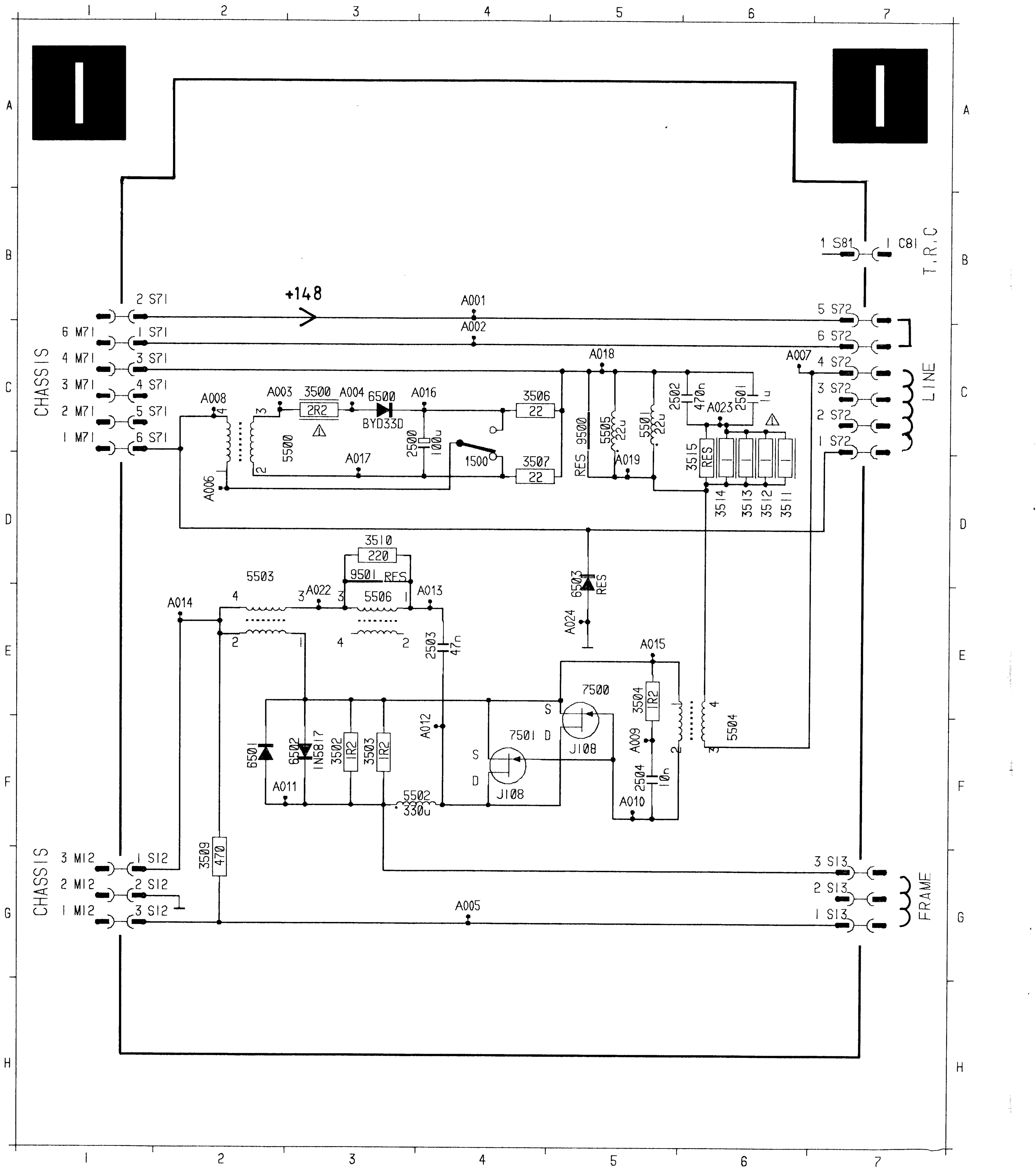

8211 015 0548 3
N23
N37
N36
3624
7614
9600
7600
2649
2645
6648
6646
3647
3625
3623

SCANNING MODULE 1009


8211 015 0684 2
3111 253 3203 2
3516
1500
S12
S13
5506
9501
3510
5503
3508
5501
S81
3506
3507
6500
3513
3503
3502
6502
3511
3515
3512
6501
3514
3504
2503
S71
3500
2500
3509
1501
S72
2502
2504
5502
5500
6503
9500
5505
2501
5504
7500
7501

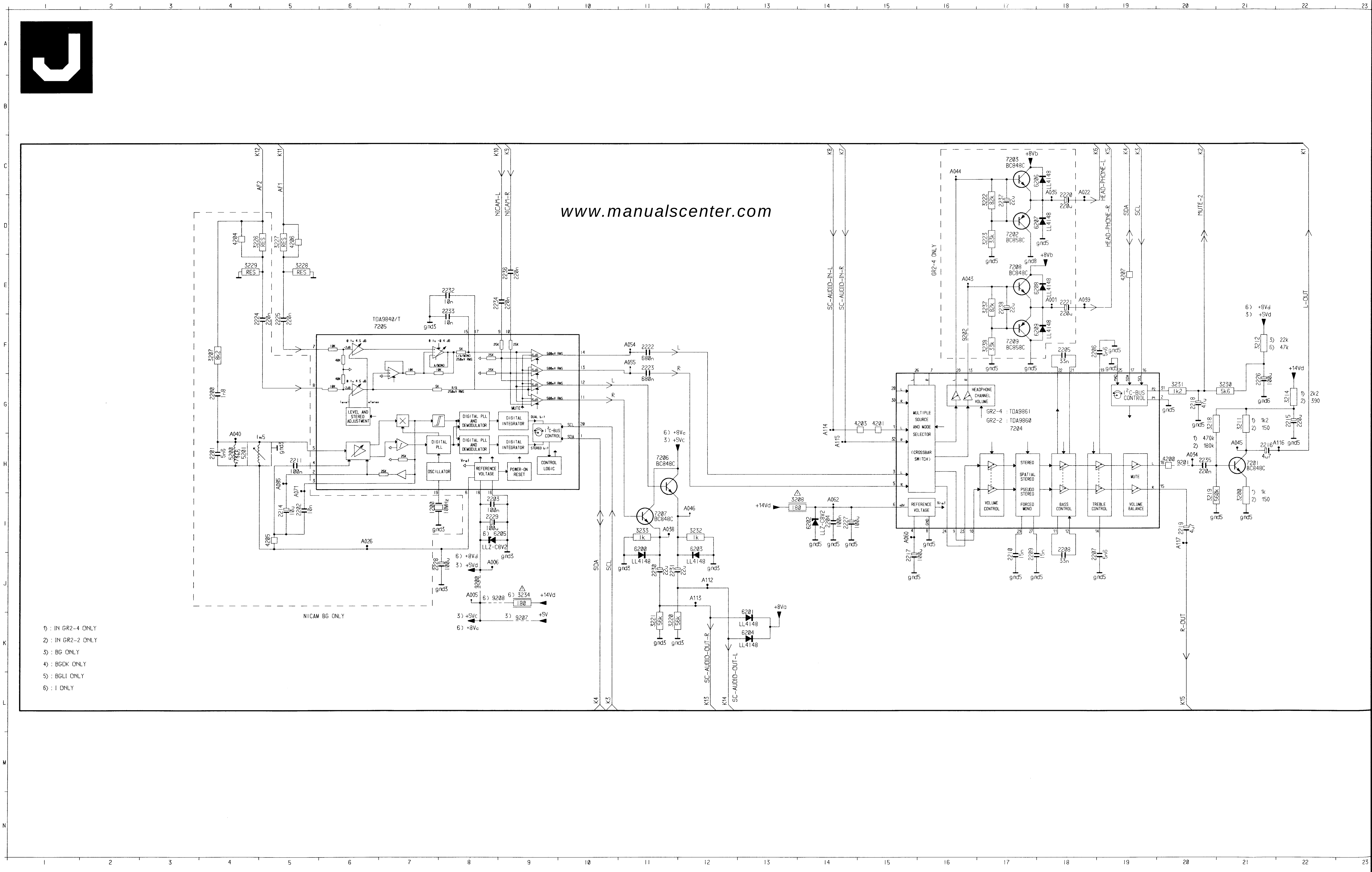
Scanning module

1500	D 4	3503	F 3	3513	D 6	5505	C 5	9501	D 3	A009	F 5	A018	C 5	S12	G 2	S71	C 2	S81	B 7
1501	A 4	3504	E 5	3514	D 6	5506	E 3	A001	B 4	A010	F 5	A019	D 5	S12	G 2	S71	C 2		
2500	C 3	3506	C 4	3515	D 6	6500	C 3	A002	C 4	A011	F 2	A020	B 3	S12	G 2	S71	C 2		
2501	C 6	3507	D 4	3516	G 4	6501	F 2	A003	C 2	A012	F 4	A021	B 5	S13	G 7	S72	C 7		
2502	C 5	3508	B 3	5500	C 3	6502	F 3	A004	C 3	A013	E 4	A022	E 3	S13	G 7	S72	C 7		
2503	E 4	3509	G 2	5501	C 5	6503	D 5	A005	G 4	A014	E 2	A023	C 6	S13	G 7	S72	C 7		
2504	F 5	3510	D 3	5502	F 4	7500	E 5	A006	D 2	A015	E 5	A024	E 5	S71	C 2	S72	C 7		
3500	C 3	3511	D 6	5503	D 2	7501	F 4	A007	C 6	A016	C 4	A025	G 4	S71	B 2	S72	B 7		
3502	F 3	3512	D 6	5504	F 6	9500	C 5	A008	C 2	A017	D 3	A026	G 3	S71	C 2	S72	C 7		


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
+148
CHASSIS
6 M71
4 M71
3 M71
2 M71
1 M71
2 S71
1 S71
3 S71
4 S71
5 S71
6 S71
A001
A002
A018
A007
5 S72
6 S72
4 S72
3 S72
2 S72
1 S72
LINE
1 S81
1 C81
T.R.C
A008
A003
3500
2R2
A004
6500
BYD330
A016
3506
22
5500
2500
100u
A017
1500
3507
22
A006
RES
9500
5505
22u
5501
22u
2502
470n
A023
2501
1u
A019
3515
RES
3514
3513
3512
3511
3510
220
9501
RES
5503
A014
A022
5506
A013
6503
RES
A024
2503
47n
A015
7500
J108
3504
1R2
A009
2504
10n
A010
5504
6501
6502
1N5817
3502
1R2
3503
1R2
A012
7501
J108
S
D
A011
5502
330u
3509
470
3 M12
2 M12
1 M12
1 S12
2 S12
3 S12
A005
3 S13
2 S13
1 S13
FRAME

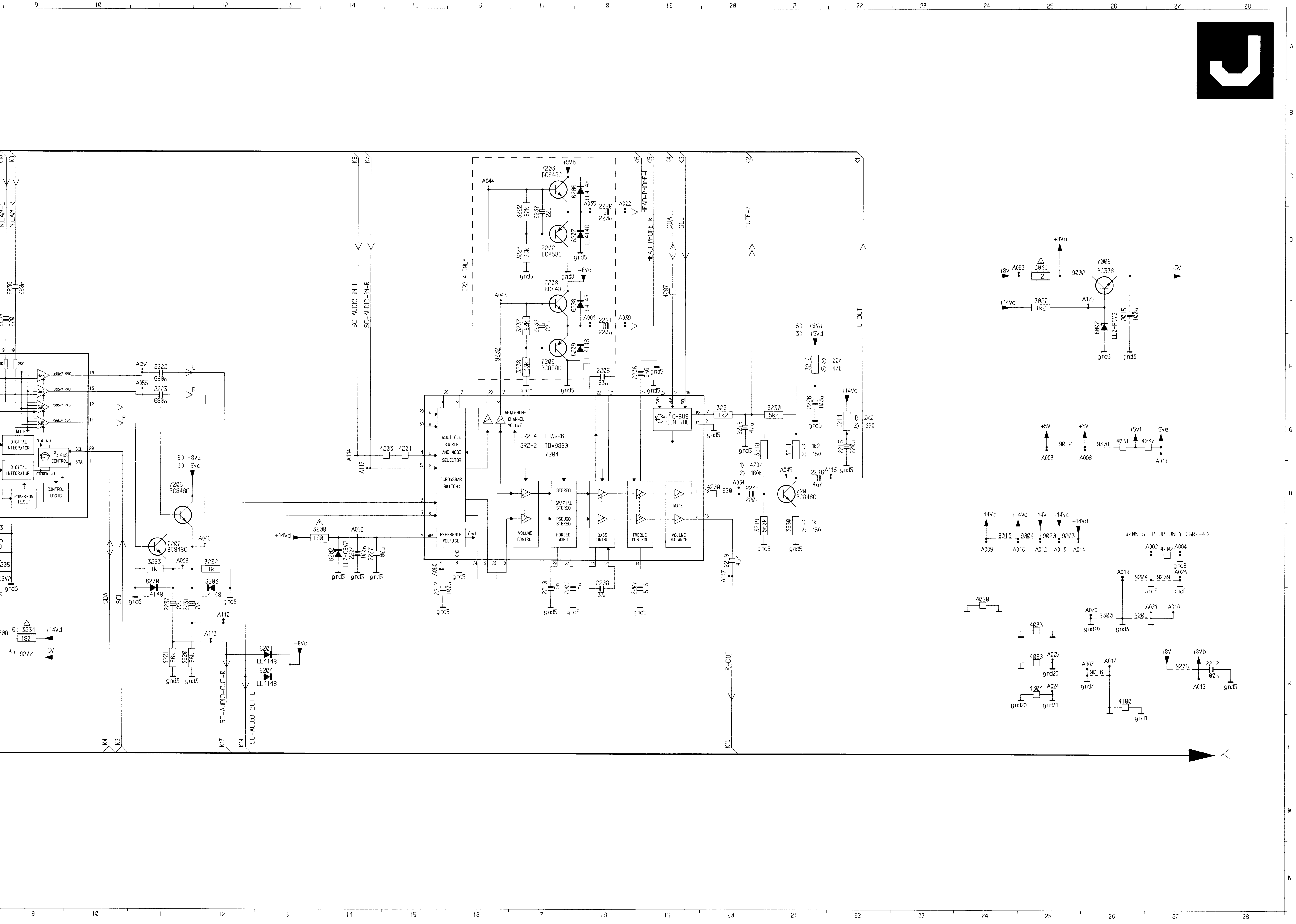
Nicam IF-Sound module/Nicam ZF-Ton module

Module FI-Son Nicam


TDA9840/T
7205
GR2-4 : TDA9861
GR2-2 : TDA9860
7204
NICAM-L
NICAM-R
AF2
AF1
K12
K11
K10
K9
K8
K7
K6
K5
K4
K3
K2
K1
K13
K14
K15
SC-AUDIO-IN-L
SC-AUDIO-IN-R
SC-AUDIO-OUT-R
SC-AUDIO-OUT-L
HEAD-PHONE-L
HEAD-PHONE-R
SDA
SCL
MUTE-2
L-OUT
R-OUT
GR2-4 ONLY
NICAM BG ONLY
LEVEL AND STEREO ADJUSTMENT
DIGITAL PLL AND DEMODULATOR
DIGITAL INTEGRATOR
DIGITAL PLL
OSCILLATOR
REFERENCE VOLTAGE
POWER-ON RESET
CONTROL LOGIC
I²C-BUS CONTROL
MULTIPLE SOURCE AND MODE SELECTOR (CROSSBAR SWITCH)
HEADPHONE CHANNEL VOLUME
VOLUME CONTROL
STEREO SPATIAL STEREO PSEUDO STEREO FORCED MONO
BASS CONTROL
TREBLE CONTROL
MUTE VOLUME BALANCE
7201 BC848C
7202 BC858C
7203 BC848C
7206 BC848C
7207 BC848C
7208 BC848C
7209 BC858C
6200 LL4148
6201 LL4148
6203 LL4148
6204 LL4148
6205 LLZ-C8V2
6202 LLZ-C8V2
1200 10MHz
3208 180
3234 180
+14Vd
+8Vb
+8Vc
+5Vc
+8Vd
+5Vd
+14Vd
+5V
+8Va
gnd5

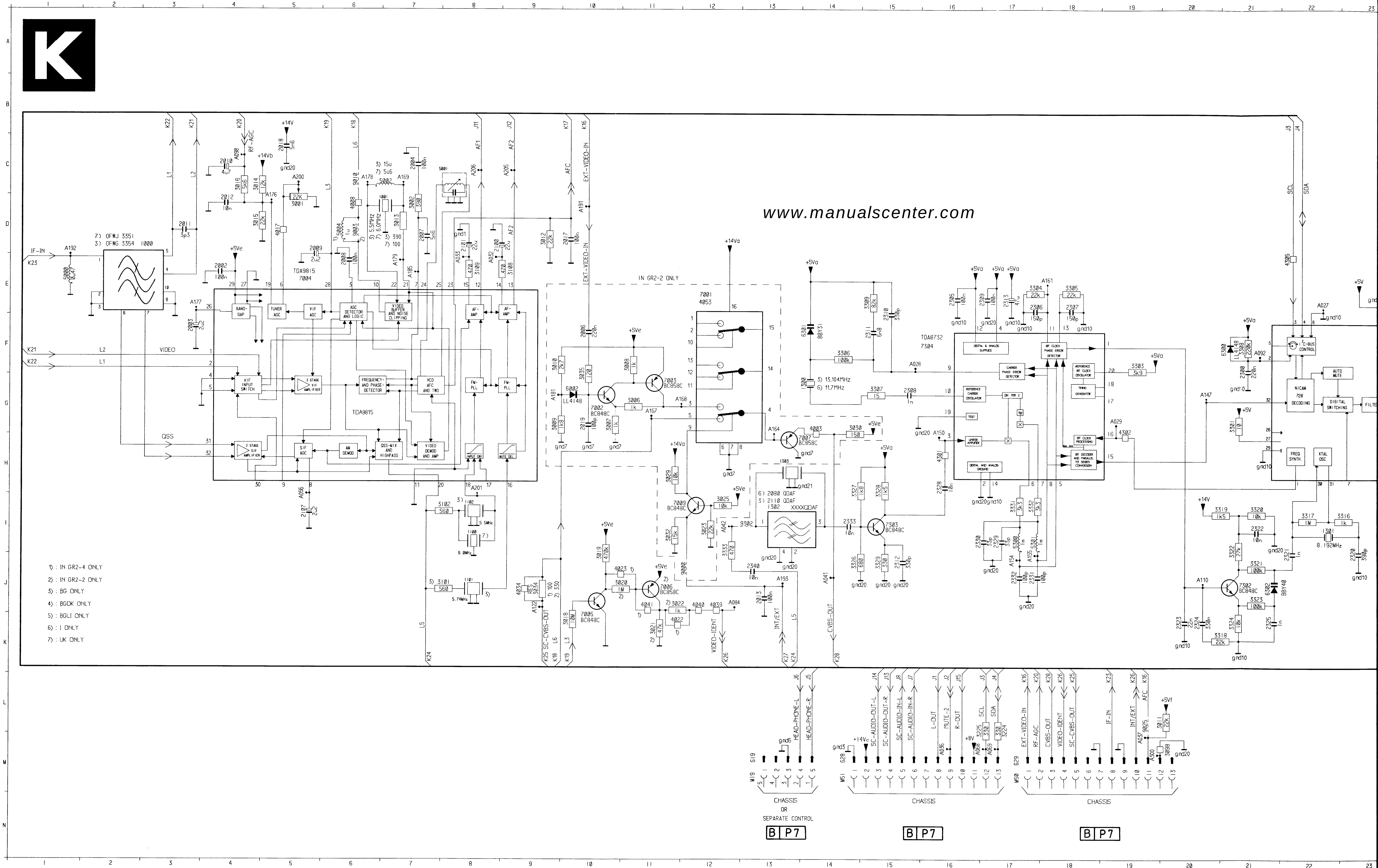
1) : IN GR2-4 ONLY
2) : IN GR2-2 ONLY
3) : BG ONLY
4) : BGDK ONLY
5) : BGLI ONLY
6) : I ONLY

Module FI-Son Nicam



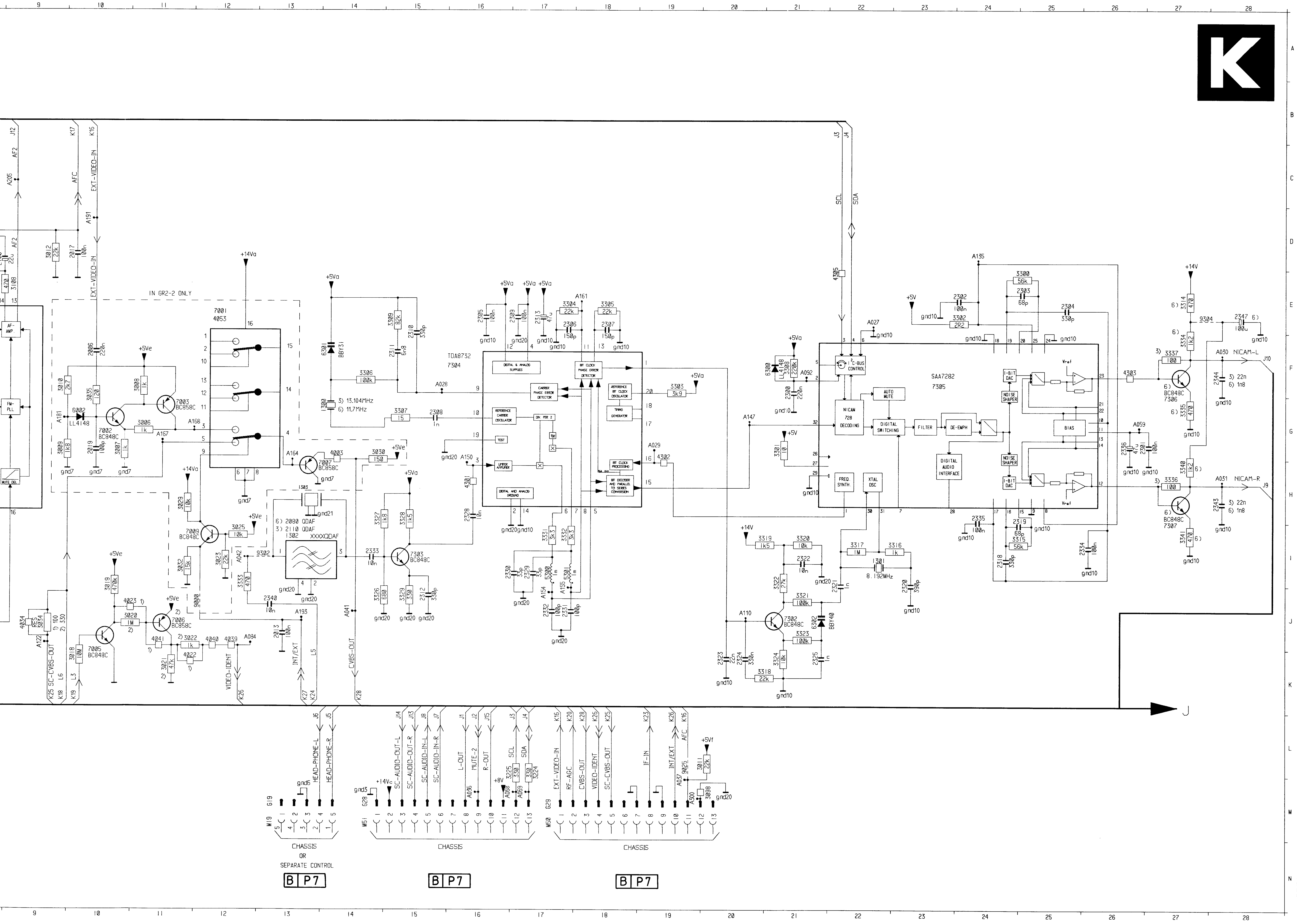
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
NICAM-L
NICAM-R
DIGITAL INTEGRATOR
I²C-BUS CONTROL
CONTROL LOGIC
POWER-ON RESET
MUTE
SCL
SDA
A054
2222
680n
A055
2223
680n
L
R
6) +8Vc
3) +5Vc
7206
BC848C
7207
BC848C
A046
3233
1k
A058
3232
1k
6200
LL4148
6203
LL4148
2230
22u
2231
22u
A112
A113
3221
56k
3220
56k
6201
LL4148
6204
LL4148
+8Va
SC-AUDIO-OUT-R
SC-AUDIO-OUT-L
6) 3234
180
+14Vd
3) 9207
+5V
K4
K3
K13
K14
K8
K7
SC-AUDIO-IN-L
SC-AUDIO-IN-R
A114
A115
4203
4201
GR2-4 ONLY
A044
+8Vb
7203
BC848C
6206
LL4148
A035
2220
220u
A022
3222
82k
2237
22u
7202
BC858C
6207
LL4148
3223
33k
gnd5
gnd8
7208
BC848C
A043
6208
LL4148
A001
2221
220u
A039
3237
82k
2238
22u
9202
7209
BC858C
6209
LL4148
3238
33k
HEAD-PHONE-L
HEAD-PHONE-R
K6
K5
SDA
SCL
MUTE-2
K2
K1
L-OUT
4207
2205
33n
2206
5n6
MULTIPLE SOURCE AND MODE SELECTOR
(CROSSBAR SWITCH)
HEADPHONE CHANNEL VOLUME
GR2-4 : TDA9861
GR2-2 : TDA9860
7204
STEREO
SPATIAL STEREO
PSEUDO STEREO
FORCED MONO
VOLUME CONTROL
BASS CONTROL
TREBLE CONTROL
MUTE
VOLUME BALANCE
REFERENCE VOLTAGE
I²C-BUS CONTROL
+14Vd
3208
180
A062
6202
LLZ-C8V2
2204
100n
2227
100u
A060
2217
100u
2210
15n
2209
15n
2208
33n
2207
5n6
A117
2219
4u7
R-OUT
K15
3231
1k2
3230
5k6
2218
47u
2226
100u
3212
3) 22k
6) 47k
6) +8Vd
3) +5Vd
+14Vd
3214
1) 2k2
2) 390
3218
1) 470k
2) 180k
3211
1) 1k2
2) 150
2215
220u
A045
2216
4u7
A116
A034
4200
9201
2235
220n
7201
BC848C
3219
560k
3200
1) 1k
2) 150
K
+8Va
+8V
A063
3033
12
9002
7008
BC338
+5V
+14Vc
3027
1k2
A175
6007
LLZ-F5V6
2015
100u
gnd3
+5Va
+5V
+5Vf
+5Ve
9012
9301
4031
4037
A003
A008
A011
+14Vb
+14Va
+14V
+14Vc
+14Vd
9013
9004
9020
9203
A009
A016
A012
A013
A014
9206:STEP-UP ONLY (GR2-4)
A002
4202
A004
gnd8
A019
9204
9209
A023
gnd6
4020
A020
9300
A021
A010
gnd10
4033
4030
A025
gnd20
A007
A017
9016
gnd7
4304
A024
gnd21
4100
gnd11
+8V
+8Vb
9206
2212
100n
A015

1200	I 7
2015	E26
2200	G 4
2201	H 4
2202	I 5
2203	I 8
2204	I14
2205	F18
2206	F18
2207	J18
2208	I18
2209	J17
2210	J17
2211	H 5
2212	K28
2214	I 5
2215	G22
2216	H21
2217	J15
2218	G20
2219	I20
2220	D18
2221	E18
2222	F11
2223	F11
2224	F 4
2225	F 5
2226	G21
2227	I14
2228	J 7
2229	I 8
2230	J11
2231	J11
2232	E 8
2233	E 8
2234	E 8
2235	H20
2236	E 9
2237	D17
2238	E17
3027	E25
3033	D25
3200	I21
3207	F 4
3208	I14
3211	G21
3212	F21
3214	G22
3218	G20
3219	I20
3220	K11
3221	K11
3222	D17
3223	D17
3226	D 4
3227	D 5
3228	E 5
3229	E 4
3230	G21
3231	G20
3232	I12
3233	I11
3234	J 9
3237	E17
3238	F17
4020	J24
4030	K25
4031	G26
4033	J25
4037	G27
4100	K26
4200	H20
4201	G15
4202	I27
4203	G15
4204	D 4
4205	I 5
4206	D 5
4207	E19
4304	K25
5200	H 4
5201	H 4
6007	E26
6200	I11
6201	K13
6202	I14
6203	I12
6204	K13
6205	I 9
6206	C18
6207	D18
6208	E18
6209	F18
7008	D26
7201	H21
7202	D17
7203	C17
7204	G17
7205	F 6
7206	H11
7207	I11
7208	E17
7209	F17
9002	E25
9004	I25
9012	G25
9013	I24
9016	K26
9020	I25
9200	J 8
9201	H20
9202	F16
9203	I25
9204	I26
9205	J26
9206	K27
9207	K 9
9208	J 9
9209	I27
9300	J26
9301	G26
A001	E18
A002	I27
A003	G25
A004	I27
A005	J 8
A006	J 8
A007	K26
A008	G26
A009	I24
A010	J27
A011	H27
A012	I25
A013	I25
A014	I25
A015	K27
A016	I25
A017	K26
A019	I26
A020	J26
A021	J27
A022	C18
A023	I27
A024	K25
A025	K25
A026	I 6
A034	H20
A035	C18
A038	I11
A039	E18
A040	H 4
A043	E16
A044	C16
A045	H21
A046	I12
A054	F11
A055	F11
A060	I15
A062	I14
A063	D24
A071	H 5
A085	H 5
A112	J12
A113	J12
A114	G14
A115	H14
A116	H22
A117	I20
A175	E26


K
IF-IN
K23
A192
7) OFWJ 3351
3) OFWG 3354 1000
TDA9815
7004
BAND-GAP
TUNER AGC
VIF AGC
AGC DETECTOR AND LOGIC
VIDEO BUFFER AND NOISE CLIPPING
AF-AMP
VIF INPUT SWITCH
3 STAGE VIF AMPLIFIER
FREQUENCY- AND PHASE-DETECTOR
VCO AFC AND TWD
FM-PLL
2 STAGE SIF AMPLIFIER
SIF AGC
AM DEMOD
QSS-MIX AND HIGHPASS
VIDEO DEMOD AND AMP
INPUT SWI
MUTE DEL
QSS
VIDEO
RF-AGC
AF1
AF2
AFC
EXT-VIDEO-IN
IN GR2-2 ONLY
7001
4053
7002 BC848C
7003 BC858C
7005 BC848C
7006 BC858C
7007 BC858C
7009 BC848C
7303 BC848C
7302 BC848C
6) 2080 QDAF
3) 2110 QDAF
1302 XXXXQDAF
3) 13,104MHz
6) 11,7MHz
BBY31
TDA8732
7304
DIGITAL & ANALOG SUPPLIES
BIT CLOCK PHASE ERROR DETECTOR
CARRIER PHASE ERROR DETECTOR
REFERENCE BIT CLOCK OSCILLATOR
REFERENCE CARRIER OSCILLATOR
DIV. PER 2
TIMING GENERATOR
TEST
LIMITER AMPLIFIER
BIT CLOCK PROCESSING
BIT DECODER AND PARALLEL TO SERIES CONVERSION
DIGITAL AND ANALOG GROUND
I²C-BUS CONTROL
AUTO MUTE
NICAM 728 DECODING
DIGITAL SWITCHING
FILTE
FREQ SYNTH.
XTAL OSC
8.192MHz
BBY40
SCL
SDA
SC-CVBS-OUT
VIDEO-IDENT
INT/EXT
CVBS-OUT
1) : IN GR2-4 ONLY
2) : IN GR2-2 ONLY
3) : BG ONLY
4) : BGDK ONLY
5) : BGLI ONLY
6) : I ONLY
7) : UK ONLY
HEAD-PHONE-L
HEAD-PHONE-R
SC-AUDIO-OUT-L
SC-AUDIO-OUT-R
SC-AUDIO-IN-L
SC-AUDIO-IN-R
L-OUT
MUTE-2
R-OUT
EXT-VIDEO-IN
RF-AGC
CVBS-OUT
VIDEO-IDENT
SC-CVBS-OUT
IF-IN
INT/EXT
AFC
CHASSIS OR SEPARATE CONTROL
CHASSIS
CHASSIS
B P7
B P7
B P7

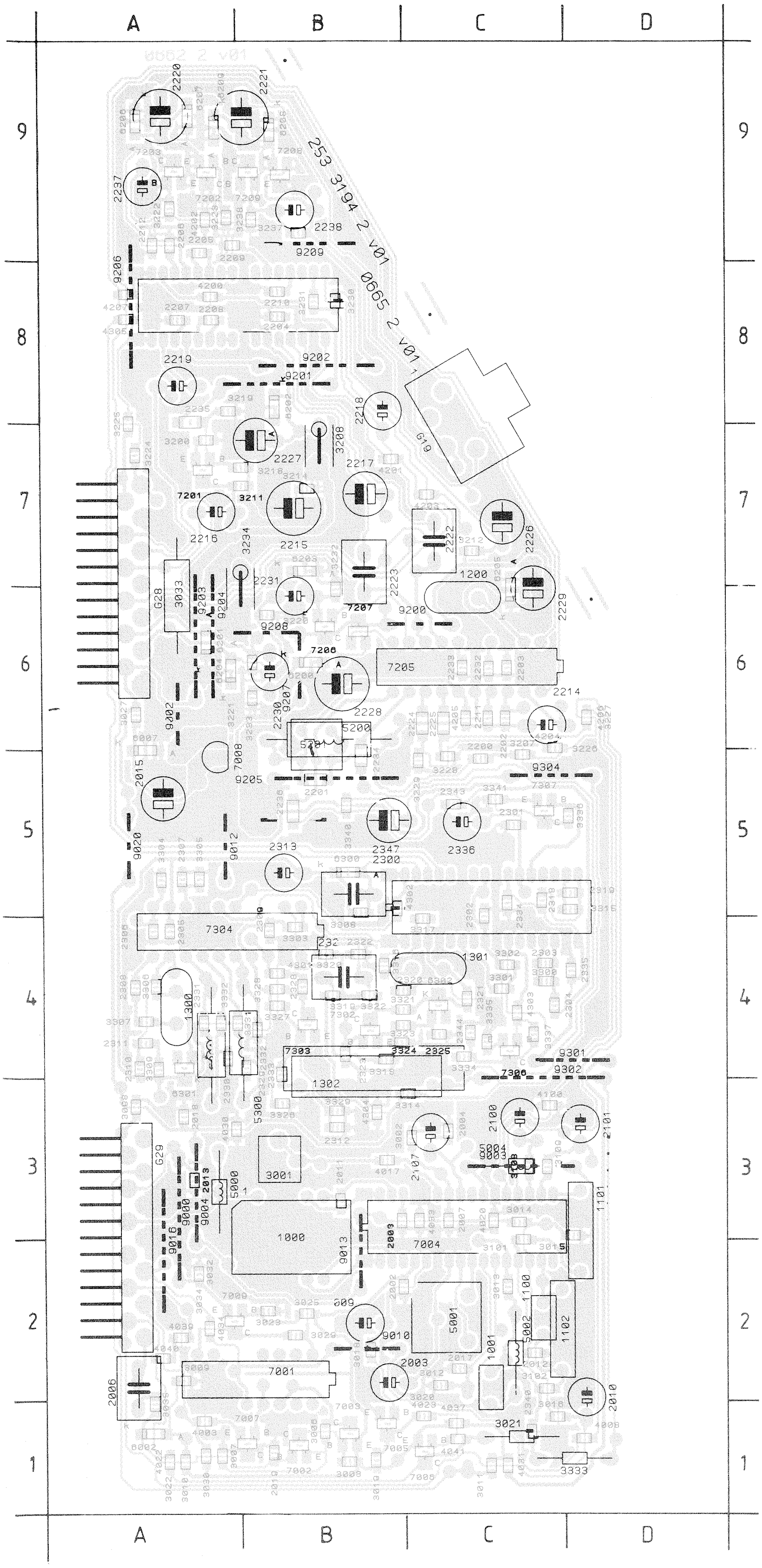
Module FI-Son Nicam

K


IN GR2-2 ONLY
7001
4053
+14Va
+5Ve
+5Va
7002
BC848C
7003
BC858C
6002
LL4148
7007
BC858C
7009
BC848C
7005
BC848C
7006
BC858C
1302
XXXXQDAF
6) 2080 QDAF
3) 2110 QDAF
1303
7303
BC848C
6301
BBY31
1300
3) 13,104MHz
6) 11,7MHz
TDA8732
7304
DIGITAL & ANALOG SUPPLIES
CARRIER PHASE ERROR DETECTOR
REFERENCE CARRIER OSCILLATOR
DIV. PER 2
TEST
LIMITER AMPLIFIER
DIGITAL AND ANALOG GROUND
BIT CLOCK PHASE ERROR DETECTOR
REFERENCE BIT CLOCK OSCILLATOR
TIMING GENERATOR
BIT CLOCK PROCESSING
BIT DECODER AND PARALLEL TO SERIES CONVERSION
SAA7282
7305
I²C-BUS CONTROL
NICAM 728 DECODING
AUTO MUTE
DIGITAL SWITCHING
FILTER
DE-EMPH
DIGITAL AUDIO INTERFACE
FREQ SYNTH
XTAL OSC
1-BIT DAC
NOISE SHAPER
BIAS
Vref
1301
8.192MHz
7302
BC848C
6302
BBY40
6300
LL4148
7306
BC848C
7307
BC848C
A030 NICAM-L
A031 NICAM-R
J10
J9
SCL
SDA
J3
J4
AF-AMP
FM-PLL
MUTE DEL
AFC
EXT-VIDEO-IN
AF2
SC-CVBS-OUT
VIDEO-IDENT
INT/EXT
CVBS-OUT
L5
L6
HEAD-PHONE-L
HEAD-PHONE-R
SC-AUDIO-OUT-L
SC-AUDIO-OUT-R
SC-AUDIO-IN-L
SC-AUDIO-IN-R
L-OUT
MUTE-2
R-OUT
EXT-VIDEO-IN
RF-AGC
CVBS-OUT
VIDEO-IDENT
SC-CVBS-OUT
IF_IN
INT/EXT
AFC
CHASSIS OR SEPARATE CONTROL
CHASSIS
CHASSIS
B P7
B P7
B P7
M19
M51
M50
G19
G28
G29
J
+5Vf
+14Vc
+8V
gnd10
gnd20
gnd7
gnd21
gnd5
gnd3

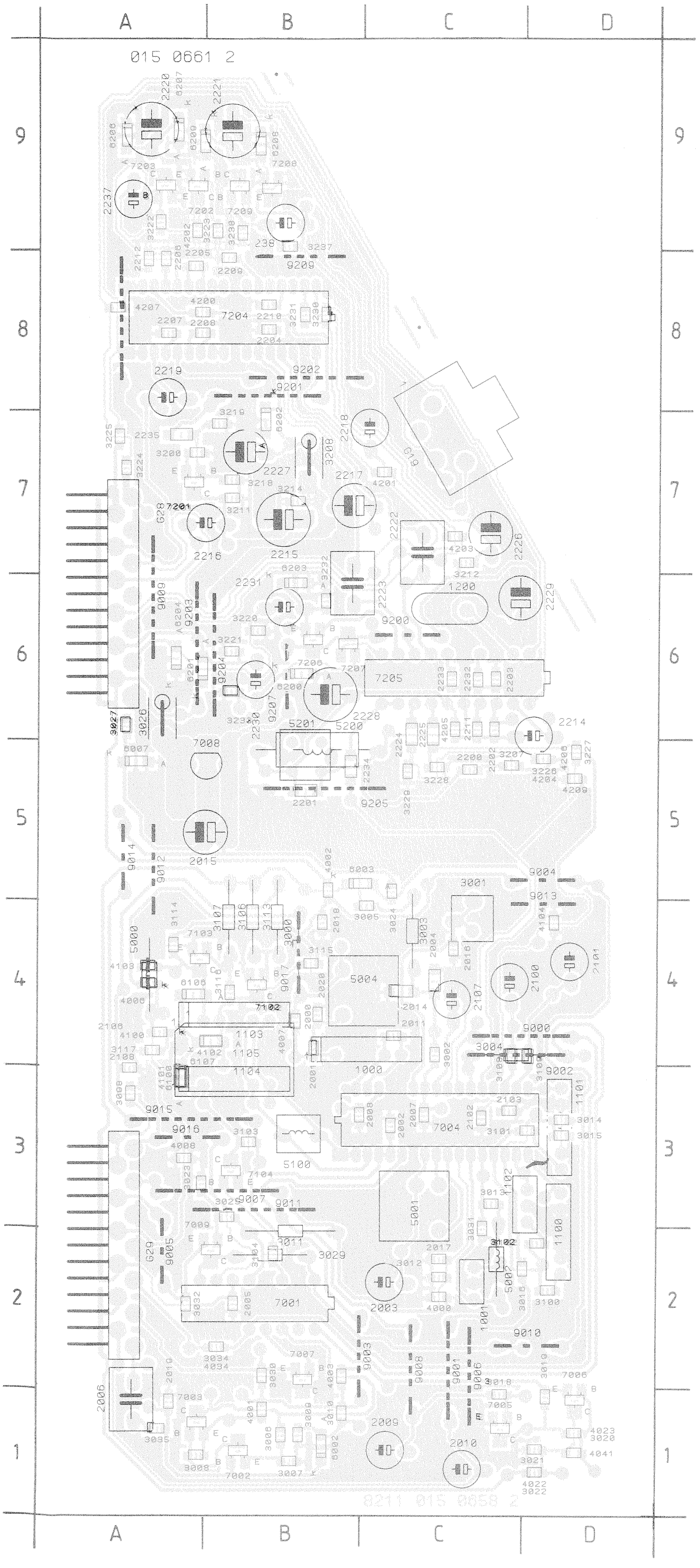
1000	D 2	7002	G10
1001	D 6	7003	G11
1100	I 8	7004	E 5
1101	J 8	7005	K10
1102	I 8	7006	J11
1300	G14	7007	H13
1301	I22	7009	I12
1302	I13	7302	J21
1303	H13	7303	I15
2002	E 4	7304	F15
2003	F 3	7305	F23
2004	C 7	7306	G27
2006	F10	7307	I27
2007	D 7	9000	J12
2008	E 6	9003	D 6
2009	D 5	9010	C 6
2010	C 4	9025	L19
2011	D 3	9302	I13
2012	D 4	9304	E27
2013	J13	A027	E22
2017	D10	A028	F15
2018	C 5	A029	G19
2019	G10	A030	F28
2100	D 8	A031	H28
2101	D 8	A032	E 8
2107	I 5	A033	E 8
2300	F21	A036	M16
2301	G26	A037	M19
2302	E24	A041	J14
2303	E25	A042	I12
2304	E25	A056	I 5
2305	E16	A059	G26
2306	E17	A068	M16
2307	E18	A069	M17
2308	G15	A084	J12
2309	E17	A092	F21
2310	E15	A098	C 4
2311	F15	A110	J20
2312	J15	A122	J 9
2313	E17	A135	D24
2318	I24	A147	G20
2319	H25	A150	G16
2320	I23	A154	J17
2321	I22	A155	J17
2322	I21	A161	E18
2323	K20	A164	G13
2324	K20	A167	G11
2325	K21	A168	G11
2328	H16	A169	C 7
2329	I17	A176	D 5
2330	I16	A177	E 3
2331	J17	A178	C 6
2332	J17	A179	E 7
2333	I14	A181	G 9
2334	I26	A185	E 7
2335	H24	A191	D10
2336	G26	A192	D 1
2340	J13	A193	J13
2343	H28	A200	C 5
2344	F28	A201	H 8
2347	E28	A205	C 9
3001	D 5	A206	C 8
3002	D 7	A300	M19
3006	G11	G19	M13
3007	G10	G19	M13
3008	F11	G19	M13
3009	G 9	G19	M13
3010	F 9	G19	M14
3011	L20	G28	M14
3012	D 9	G28	M15
3013	D 7	G28	M15
3014	C 4	G28	M15
3015	D 4	G28	M15
3016	C 4	G28	M15
3018	K10	G28	M16
3019	I10	G28	M16
3020	J11	G28	M16
3021	K11	G28	M16
3022	J11	G28	M16
3023	I12	G28	M17
3025	I12	G28	M17
3029	H11	G29	M17
3030	G14	G29	M17
3032	I11	G29	M18
3034	J 9	G29	M18
3035	F10	G29	M18
3098	M20	G29	M18
3101	J 8	G29	M18
3102	I 8	G29	M19
3108	E 9	G29	M19
3109	E 8	G29	M19
3224	L17	G29	M19
3225	L17	G29	M19
3300	E25	G29	M20
3301	G21		
3302	E24		
3303	F19		
3304	E17		
3305	E18		
3306	F14		
3307	G15		
3308	F21		
3309	E15		
3314	E27		
3315	I25		
3316	I23		
3317	I22		
3318	K21		
3319	I21		
3320	I21		
3321	J21		
3322	I21		
3323	J21		
3324	K21		
3326	J14		
3327	H14		
3328	H15		
3329	J15		
3331	I17		
3332	I17		
3333	I12		
3334	F27		
3335	G27		
3336	H27		
3337	F27		
3340	H27		
3341	I27		
4003	G14		
4008	D 6		
4017	D 5		
4022	K11		
4023	J10		
4034	J 9		
4039	J12		
4040	J12		
4041	J11		
4301	H16		
4302	G19		
4303	F26		
4305	E22		
5000	E 1		
5001	C 7		
5002	C 7		
5004	D 6		
5300	I17		
5301	I17		
6002	G10		
6300	F20		
6301	F14		
6302	J21		
7001	E12		

Nicam IF module



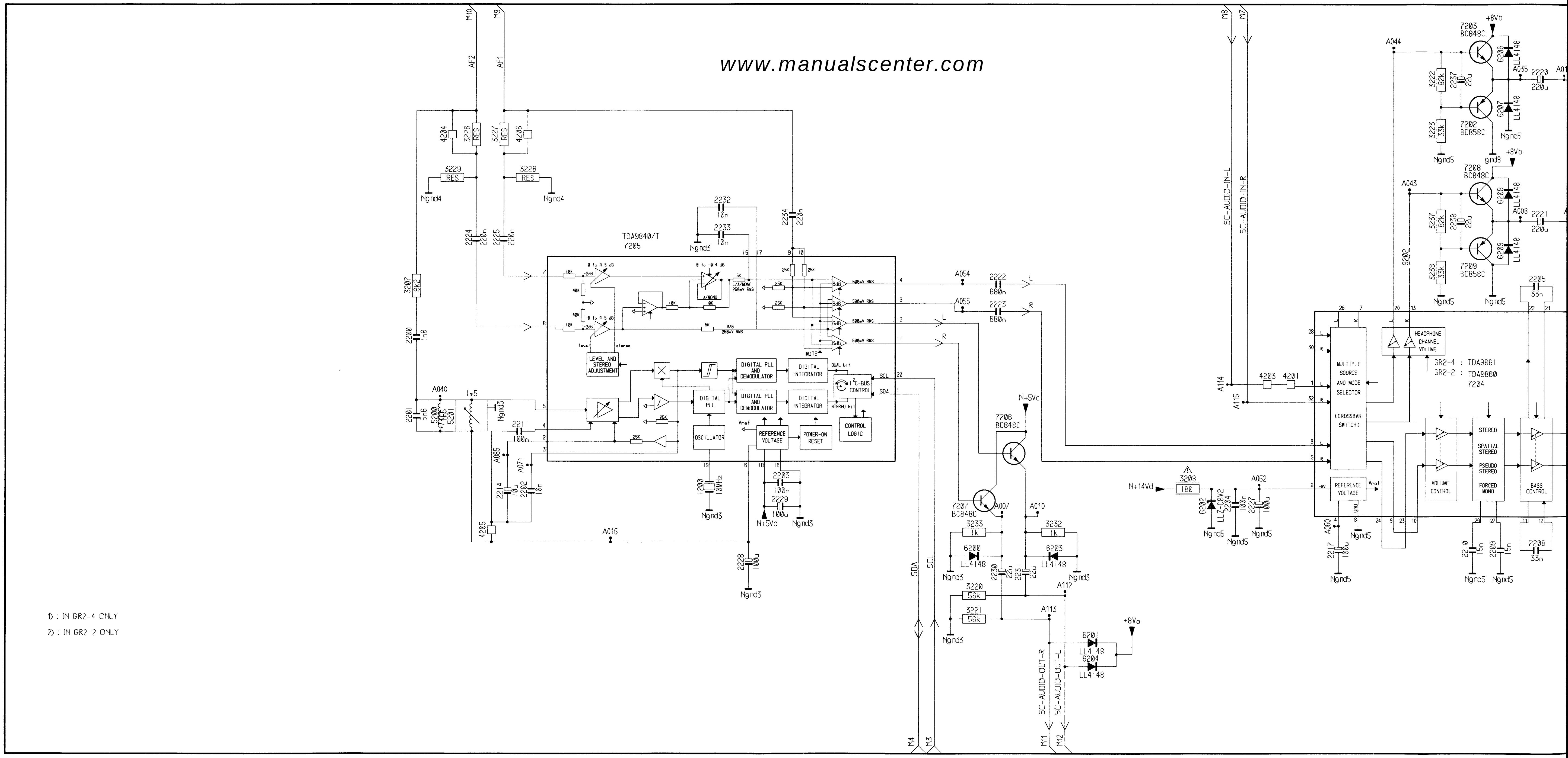
G28	C7
G29	C3
1000	B3
1001	A2
1100	A2
1101	A3
1102	A2
1200	A6
1300	C4
1301	A4
1302	B3
1303	B3
2002	B2
2003	B2
2004	A3
2006	C2
2007	A3
2008	B3
2009	B2
2010	A1
2011	B3
2012	A2
2013	C3
2015	C5
2017	A2
2018	C3
2019	B1
2100	A3
2101	A3
2107	A3
2200	A5
2201	B5
2202	A6
2203	A6
2204	B8
2205	C9
2206	C9
2207	C8
2208	C8
2209	C9
2210	B8
2211	A6
2212	C9
2214	A6
2215	B7
2216	C7
2217	B7
2218	B8
2219	C8
2220	C9
2221	C9
2222	A7
2223	B7
2224	A6
2225	A6
2226	A7
2227	C7
2228	B6
2229	A6
2230	B6
2231	B6
2232	A6
2233	A6
2234	B5
2235	C8
2236	B5
2237	C9
2238	B9
2300	B5
2301	A5
2302	A4
2303	A4
2304	A4
2305	C4
2306	C4
2307	C5
2308	C4
2309	B4
2310	C4
2311	C4
2312	B3
2313	B5
2318	A5
2319	A5
2320	B4
2321	A4
2322	B4
2323	B4
2324	B4
2325	A4
2328	B4
2329	C4
2330	C4
2331	C4
2332	C4
2333	B4
2334	A5
2335	A4
2336	A5
2340	A1
2343	A5
2344	A4
2347	B5
3001	B3
3002	B3
3006	B1
3007	C1
3008	B1
3009	C2
3010	C1
3011	A1
3012	A2
3013	A2
3014	A3
3015	A3
3016	A1
3018	B2
3019	B1
3020	A1
3021	A1
3022	C1
3023	B2
3025	B2
3027	C6
3029	B2
3030	C1
3032	C2
3033	C6
3034	C2
3035	C1
3098	C3
3101	A2
3102	A2
3108	A3
3109	A3
3200	C7
3207	A5
3208	B7
3211	C7
3212	A7
3214	B7
3218	C7
3219	C8
3220	B6
3221	C6
3222	C9
3223	C9
3224	C7
3226	A6
3227	A5
3228	A5
3229	B5
3230	B8
3231	B8
3232	B6
3233	C6
3234	C6
3237	B9
3238	C9
3300	A4
3301	A4
3302	A4
3303	B4
3304	C5
3305	C5
3306	C4
3307	C4
3308	B4
3309	C4
3314	B3
3315	A5
3316	B4
3317	A4
3318	B4
3319	B4
3320	B4
3321	B4
3322	B4
3323	B4
3324	B4
3326	B3
3327	B4
3328	B4
3329	B3
3331	C4
3332	C4
3333	A1
3334	A4
3335	A4
3336	A5
3337	A4
3340	B5
3341	A5
4003	C1
4008	A1
4017	B3
4020	A3
4022	C1
4023	A1
4030	C3
4031	A1
4033	B3
4034	C2
4037	A1
4039	C2
4040	C2
4041	A1
4100	A3
4200	C8
4201	B7
4202	C9
4203	A7
4204	A6
4205	A6
4206	A6
4301	B4
4302	B5
4303	A4
4304	B3
5000	C3
5001	A2
5002	A2
5004	A3
5200	B6
5201	B6
5300	C4
5301	C4
6002	C1
6007	C5
6200	B6
6201	C6
6202	B8
6203	B7
6204	C6
6205	A6
6206	C9
6207	C9
6208	B9
6209	C9
6300	B5
6301	C4
6302	A4
7001	C2
7002	B1
7003	B1
7004	A3
7005	B1
7006	A1
7007	C1
7008	C5
7009	C2
7201	C7
7202	C9
7203	C9
7204	C8
7205	A6
7206	B6
7207	B6
7208	B9
7209	C9
7302	B4
7303	B4
7304	C4
7305	A5
7306	A4
7307	A5
9000	C3
9002	C6
9003	A3
9004	C3
9010	B2
9012	C5
9013	B2
9016	C2
9025	A1
9200	B6
9201	B8
9202	B8
9203	C6
9204	C6
9205	B5
9207	B6
9208	B6
9209	B9
9300	B5
9301	A4
9302	A3
9304	A5

Stereo IF module



1000	C3
1001	B2
1100	A2
1101	A3
1102	B3
1103	C4
1104	C3
1105	C3
1200	B6
2000	C4
2001	C4
2002	B3
2003	B2
2004	B4
2005	C2
2006	D1
2007	B3
2008	C3
2009	B1
2010	B1
2011	B4
2014	B4
2015	D5
2016	B4
2017	B2
2018	C4
2019	D1
2020	C4
2100	B4
2101	A4
2102	B3
2103	B3
2106	D4
2107	B4
2108	D3
2200	B5
2201	C5
2202	B5
2203	B6
2204	C8
2205	D8
2206	D8
2207	D8
2208	D8
2209	C8
2210	C8
2211	B5
2212	D8
2214	B5
2215	C7
2216	D7
2217	C7
2218	C7
2219	D8
2220	D9
2221	C9
2222	B7
2223	C6
2224	B5
2225	B5
2226	B7
2227	C7
2228	C6
2229	B6
2230	C6
2231	C6
2232	B6
2233	B6
2234	C5
2235	D7
2237	D9
2238	C9
3000	C4
3001	B4
3002	B3
3003	B4
3004	B3
3005	C4
3006	C1
3007	C1
3008	D1
3009	C1
3010	C1
3011	C2
3012	B2
3013	B3
3014	A3
3015	A3
3016	B2
3018	B1
3019	A1
3020	A1
3021	B1
3022	B1
3023	D3
3024	B4
3025	C2
3026	D6
3027	D6
3029	C2
3030	C2
3031	B2
3032	D2
3034	D2
3035	D1
3098	D3
3100	A2
3101	B3
3102	B2
3103	C3
3104	C2
3106	C4
3107	C4
3108	B3
3109	B3
3113	C4
3114	D4
3115	C4
3116	C4
3117	D4
3200	D7
3207	B5
3208	C7
3211	C7
3212	B7
3214	C7
3218	C7
3219	C7
3220	C6
3221	C6
3222	D9
3223	C9
3224	D7
3225	D7
3226	A5
3227	A5
3228	B5
3229	B5
3230	C8
3231	C8
3232	C6
3233	C6
3237	C8
3238	C9
4000	B2
4001	C1
4002	C4
4003	C1
4006	D4
4007	C4
4008	D3
4022	B1
4023	A1
4034	D2
4041	A1
4100	D4
4101	D3
4102	D4
4103	D4
4104	A4
4200	D8
4201	B7
4202	D9
4203	B7
4204	A5
4205	B5
4207	D8
4209	A5
5000	D4
5001	B3
5002	B2
5004	C4
5100	C3
5200	C5
5201	C5
6002	C1
6003	C5
6007	D5
6100	D3
6106	D4
6107	D4
6200	C6
6201	D6
6202	C7
6203	C6
6204	D6
6206	D9
6207	D9
6208	C9
6209	D9
7001	C2
7002	C1
7003	D1
7004	B3
7005	B1
7006	A1
7007	C1
7008	D5
7009	D2
7102	C4
7103	D4
7104	C3
7201	D7
7202	D9
7203	D9
7204	C8
7205	B6
7206	C6
7207	C6
7208	C9
7209	C9
9000	B4
9001	B2
9002	B3
9003	C2
9004	A5
9005	D2
9006	B1
9007	C3
9008	B2
9009	D6
9010	B2
9011	C3
9012	D5
9013	A4
9014	D5
9015	D3
9016	D3
9017	C4
9200	B6
9201	C8
9202	C8
9203	D6
9204	D6
9205	C5
9206	D8
9207	C6
9209	C8
G19	B7
G28	D6
G29	D2

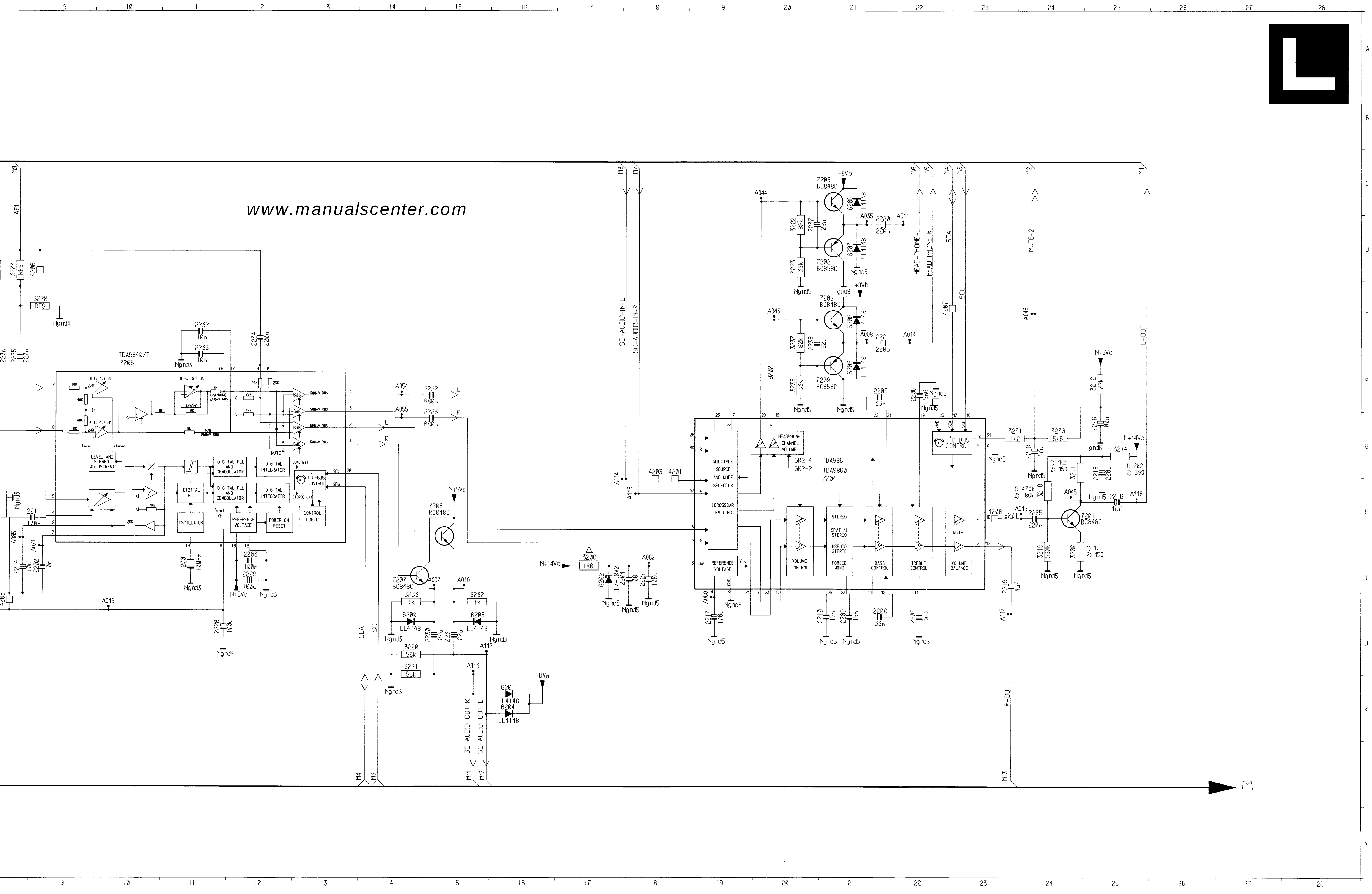
L


M10
M9
AF2
AF1
4204
3226 RES
3227 RES
4206
3229 RES
3228 RES
Ngnd4
2232 10n
2233 10n
2234 220n
Ngnd3
2224 220n
2225 220n
TDA9840/T
7205
3207 8k2
2200 1n8
A040
1m5
2201 5n6
5200
5201
2211 100n
A085
A071
2214 10u
2202 10n
4205
A016
2228 100u
LEVEL AND STEREO ADJUSTMENT
DIGITAL PLL AND DEMODULATOR
DIGITAL INTEGRATOR
DIGITAL PLL
OSCILLATOR
REFERENCE VOLTAGE
POWER-ON RESET
CONTROL LOGIC
I²C-BUS CONTROL
MUTE
DUAL bit
STEREO bit
SCL
SDA
1200 10MHz
2203 100n
2229 100u
N+5Vd
A054
2222 680n
A055
2223 680n
L
R
N+5Vc
7206 BC848C
7207 BC848C
A007
A010
3233 1k
3232 1k
6200 LL4148
6203 LL4148
2230 22u
2231 22u
3220 56k
3221 56k
A112
A113
6201 LL4148
6204 LL4148
+8Va
SC-AUDIO-OUT-R
SC-AUDIO-OUT-L
M11
M12
M4
M3
M8
M7
SC-AUDIO-IN-L
SC-AUDIO-IN-R
A114
A115
4203
4201
N+14Vd
3208 180
6202 LLZ-C6V2
2204 100n
2227 100u
A062
Ngnd5
MULTIPLE SOURCE AND MODE SELECTOR (CROSSBAR SWITCH)
HEADPHONE CHANNEL VOLUME
GR2-4 : TDA9861
GR2-2 : TDA9860
7204
REFERENCE VOLTAGE
VOLUME CONTROL
STEREO SPATIAL STEREO PSEUDO STEREO FORCED MONO
BASS CONTROL
A060
2217 100u
2210 15n
2209 15n
2208 33n
2205 33n
9202
A044
7203 BC848C
+8Vb
6206 LL4148
A035
2220 220u
3222 82K
2237 22u
7202 BC858C
6207 LL4148
3223 33K
A043
7208 BC848C
6208 LL4148
A008
2221 220u
3237 82K
2238 22u
7209 BC858C
6209 LL4148
3238 33K
gnd8

1) : IN GR2-4 ONLY

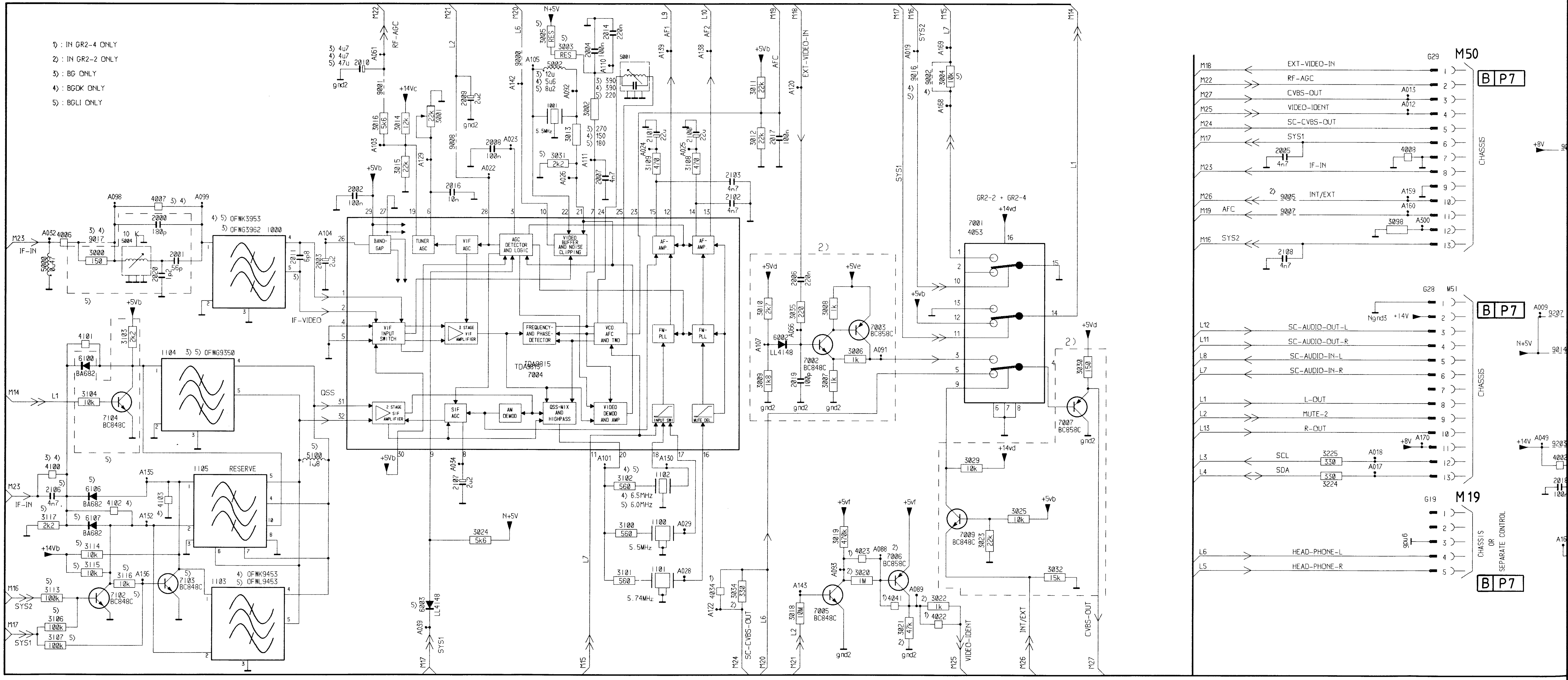
2) : IN GR2-2 ONLY

Module FI-Son Stereo

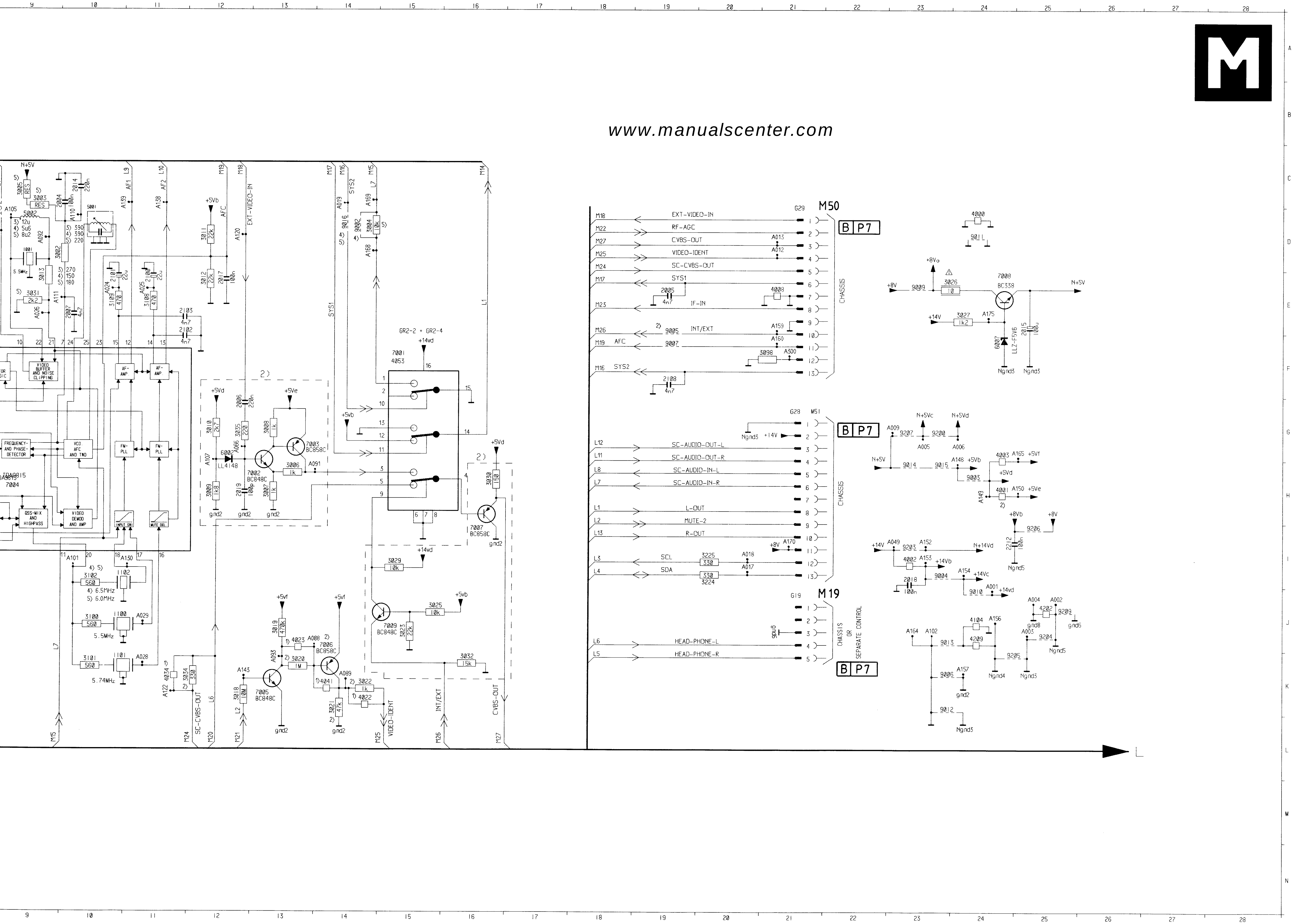

TDA9840/T
7205
LEVEL AND STEREO ADJUSTMENT
DIGITAL PLL
OSCILLATOR
DIGITAL PLL AND DEMODULATOR
DIGITAL INTEGRATOR
I²C-BUS CONTROL
REFERENCE VOLTAGE
POWER-ON RESET
CONTROL LOGIC
MUTE
SDA
SCL
1200 10MHz
7206 BC848C
7207 BC848C
N+5Vc
N+5Vd
N+14Vd
3208 180
6202 LLZ-C8V2
SC-AUDIO-IN-L
SC-AUDIO-IN-R
SC-AUDIO-OUT-R
SC-AUDIO-OUT-L
7203 BC848C
7202 BC858C
7208 BC848C
7209 BC858C
+8Vb
+8Va
HEAD-PHONE-L
HEAD-PHONE-R
MUTE-2
L-OUT
R-OUT
MULTIPLE SOURCE AND MODE SELECTOR (CROSSBAR SWITCH)
HEADPHONE CHANNEL VOLUME
GR2-4 : TDA9861
GR2-2 : TDA9860
7204
VOLUME CONTROL
STEREO SPATIAL STEREO PSEUDO STEREO FORCED MONO
BASS CONTROL
TREBLE CONTROL
MUTE
VOLUME BALANCE
7201 BC848C
1) 1k2 2) 150
1) 2k2 2) 390
1) 470k 2) 180k
1) 1k 2) 150
LL4148
M1
M2
M3
M4
M5
M6
M7
M8
M9
M11
M12
M13
M14
M

1200	I11
2200	G 7
2201	H 7
2202	I 9
2203	I12
2204	I18
2205	F21
2206	F22
2207	J22
2208	J21
2209	J21
2210	J21
2211	H 9
2214	I 8
2215	G25
2216	H25
2217	J19
2218	G24
2219	I23
2220	D21
2221	E21
2222	F15
2223	G15
2224	F 8
2225	F 8
2226	G25
2227	I18
2228	J11
2229	I12
2230	J15
2231	J15
2232	E11
2233	F11
2234	E12
2235	H24
2237	D20
2238	E20
3200	I24
3207	F 7
3208	I17
3211	G24
3212	F25
3214	G25
3218	H24
3219	I24
3220	J14
3221	J14
3222	D20
3223	D20
3226	D 8
3227	D 8
3228	E 9
3229	E 8
3230	G24
3231	G23
3232	I15
3233	I14
3237	E20
3238	F20
4200	H23
4201	G18
4203	G18
4204	D 8
4205	I 8
4206	D 9
4207	E22
5200	H 8
5201	H 8
6200	J14
6201	K16
6202	I17
6203	J15
6204	K16
6206	C21
6207	D21
6208	E21
6209	F21
7201	H24
7202	D20
7203	C20
7204	H21
7205	F10
7206	H15
7207	I14
7208	E20
7209	F20
9201	H23
9202	F20
A007	I15
A008	E21
A010	I15
A011	D22
A014	E22
A015	H24
A016	I10
A035	D21
A040	H 8
A043	E20
A044	C20
A045	H24
A046	E24
A054	F14
A055	F14
A060	I19
A062	I18
A071	I 9
A085	H 8
A112	J15
A113	J15
A114	H17
A115	H18
A116	H25
A117	J23

M

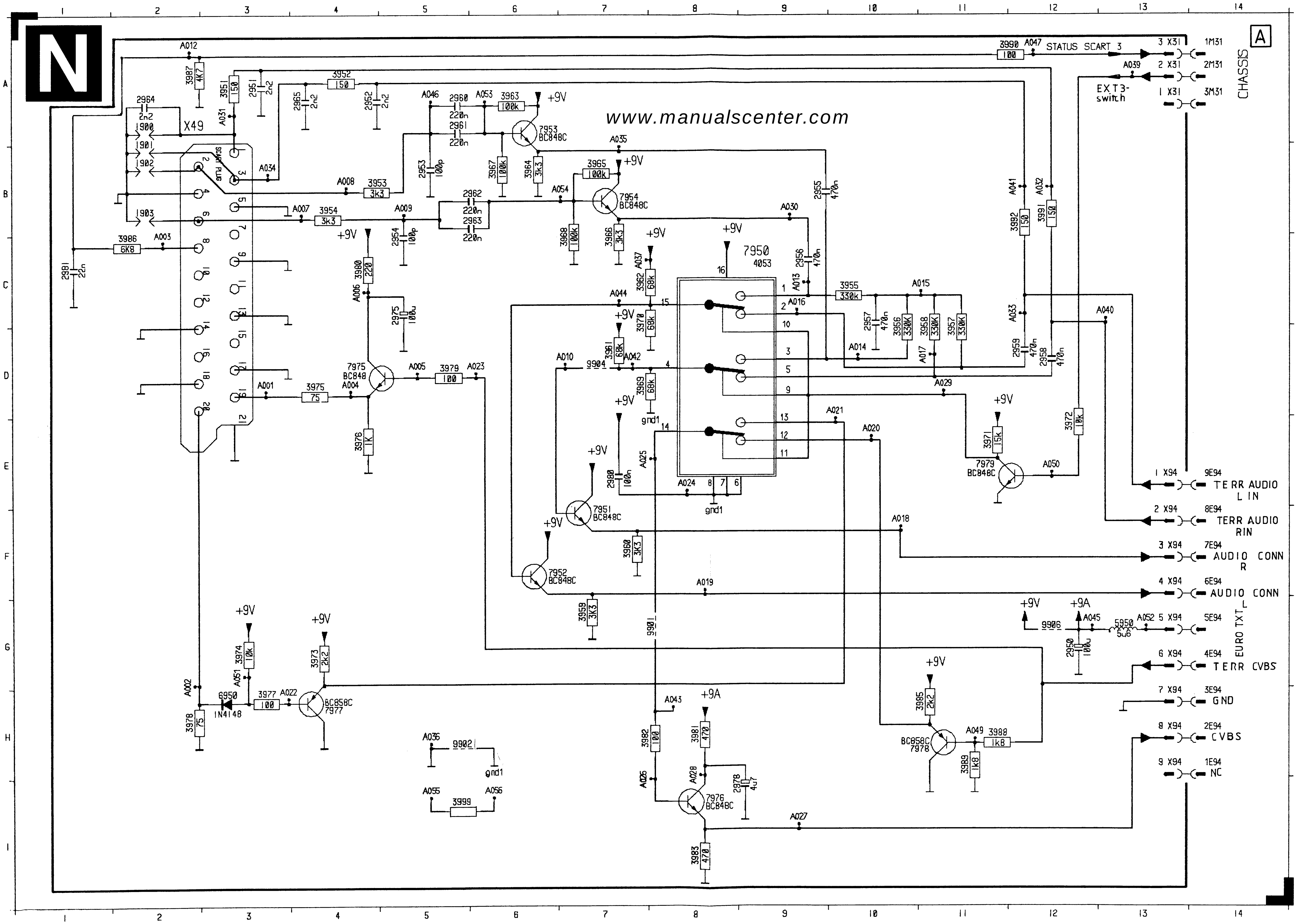

1) : IN GR2-4 ONLY
2) : IN GR2-2 ONLY
3) : BG ONLY
4) : BGDK ONLY
5) : BGLI ONLY
TDA9815
7004
BAND-GAP
TUNER AGC
VIF AGC
AGC DETECTOR AND LOGIC
VIDEO BUFFER AND NOISE CLIPPING
AF-AMP
VIF INPUT SWITCH
3 STAGE VIF AMPLIFIER
FREQUENCY- AND PHASE-DETECTOR
VCO AFC AND TWD
FM-PLL
2 STAGE SIF AMPLIFIER
SIF AGC
AM DEMOD
QSS-MIX AND HIGHPASS
VIDEO DEMOD AND AMP
INPUT SW
MUTE DEL
IF-IN
IF-VIDEO
QSS
RF-AGC
AFC
EXT-VIDEO-IN
AF1
AF2
SYS1
SYS2
SC-CVBS-OUT
VIDEO-IDENT
INT/EXT
CVBS-OUT
1104 3) 5) OFWG9350
4) 5) OFWK3953
3) OFWG3962
1105 RESERVE
1103 4) OFWK9453 5) OFWL9453
7104 BC848C
7102 BC848C
7103 BC848C
7002 BC848C
7003 BC858C
7005 BC848C
7006 BC858C
7007 BC858C
7009 BC848C
7001 4053
GR2-2 + GR2-4
5.5MHz
4) 6.5MHz
5) 6.0MHz
5.74MHz
M50
G29
EXT-VIDEO-IN
RF-AGC
CVBS-OUT
VIDEO-IDENT
SC-CVBS-OUT
SYS1
IF-IN
INT/EXT
AFC
SYS2
CHASSIS
B P7
G28 M51
SC-AUDIO-OUT-L
SC-AUDIO-OUT-R
SC-AUDIO-IN-L
SC-AUDIO-IN-R
L-OUT
MUTE-2
R-OUT
SCL
SDA
M19
G19
HEAD-PHONE-L
HEAD-PHONE-R
CHASSIS OR SEPARATE CONTROL

Module FI-Son Stereo


M
M50
G29
M18 EXT-VIDEO-IN
M22 RF-AGC
M27 CVBS-OUT
M25 VIDEO-IDENT
M24 SC-CVBS-OUT
M17 SYS1
M23 IF-IN
M26 INT/EXT
M19 AFC
M16 SYS2
CHASSIS
B P7
M51
G28
L12 SC-AUDIO-OUT-L
L11 SC-AUDIO-OUT-R
L8 SC-AUDIO-IN-L
L7 SC-AUDIO-IN-R
L1 L-OUT
L2 MUTE-2
L13 R-OUT
L3 SCL
L4 SDA
M19
G19
L6 HEAD-PHONE-L
L5 HEAD-PHONE-R
CHASSIS OR SEPARATE CONTROL
7001 4053
GR2-2 + GR2-4
7002 BC848C
7003 BC858C
7005 BC848C
7006 BC858C
7007 BC858C
7009 BC848C
7008 BC338
6007 LLZ-F5V6
6002 LL4148
TDA9815 7004
VIDEO BUFFER AND NOISE CLIPPING
FREQUENCY- AND PHASE-DETECTOR
VCO, AFC AND TWD
QSS-MIX AND HIGHPASS
VIDEO DEMOD AND AMP
AF-AMP
FM-PLL
INPUT SW
MUTE DEL
5.5MHz
5.74MHz
4) 6.5MHz
5) 6.0MHz
N+5V
+8V
+14V
N+14Vd
L

1000	F 5	A001	I24
1001	D 9	A002	J25
1100	J10	A003	J25
1101	K10	A004	J25
1102	I10	A005	G23
1103	K 4	A006	G24
1104	H 4	A009	G23
1105	I 4	A012	D21
2000	F 4	A013	D21
2001	F 4	A017	I20
2002	E 6	A018	I20
2003	F 6	A019	C14
2004	C 9	A022	E 8
2005	E19	A023	E 8
2006	G12	A024	E10
2007	E10	A025	E11
2008	E 8	A026	E 9
2009	D 8	A028	K11
2010	D 6	A029	J11
2011	F 5	A032	F 2
2014	C10	A034	I 8
2015	E25	A039	K 7
2016	E 8	A049	I23
2017	E12	A061	C 7
2018	I23	A066	G12
2019	H12	A088	J13
2020	G 4	A089	K14
2100	E11	A091	H13
2101	E10	A092	D 9
2102	E11	A093	K13
2103	E11	A098	E 3
2106	J 2	A099	E 4
2107	I 8	A101	I10
2108	F19	A102	J23
2212	I24	A103	E 7
3000	F 3	A104	F 6
3001	D 7	A105	D 9
3002	D 9	A107	H12
3003	C 9	A110	D10
3004	D14	A111	E 9
3005	C 9	A120	D12
3006	H13	A122	K11
3007	H13	A129	E 7
3008	G13	A130	I11
3009	H12	A132	J 3
3010	G12	A135	I 3
3011	D12	A136	K 3
3012	E12	A138	C11
3013	E 9	A139	C10
3014	D 7	A142	D 8
3015	E 7	A143	K12
3016	D 7	A148	G24
3018	K12	A149	H24
3019	J13	A150	H25
3020	K13	A152	I23
3021	K14	A153	I23
3022	K14	A154	I24
3023	J15	A156	J24
3024	J 8	A157	K24
3025	J15	A159	E21
3026	E23	A160	F21
3027	E24	A164	J23
3029	I15	A165	G25
3030	H16	A168	D14
3031	E 9	A169	C14
3032	K16	A170	I21
3034	K12	A175	E24
3035	G12	A300	F21
3098	F21	G19	J21
3100	J10	G19	K21
3101	K10	G19	J21
3102	I10	G19	J21
3103	G 3	G19	J21
3104	H 3	G28	G21
3106	K 2	G28	I21
3107	L 2	G28	H21
3108	E11	G28	H21
3109	E10	G28	H21
3113	K 2	G28	H21
3114	J 3	G28	H21
3115	K 3	G28	G21
3116	K 3	G28	G21
3117	J 2	G28	G21
3224	I20	G28	I21
3225	I20	G28	I21
4000	D24	G28	I21
4001	H24	G29	D21
4002	I23	G29	F21
4003	G24	G29	F21
4006	F 2	G29	F21
4007	F 4	G29	E21
4008	E21	G29	E21
4022	K14	G29	E21
4023	J13	G29	E21
4034	K11	G29	E21
4041	K14	G29	D21
4100	I 2	G29	D21
4101	G 3	G29	D21
4102	J 3	G29	D21
4103	J 4		
4104	J24		
4202	J25		
4209	J24		
5000	F 2		
5001	D10		
5002	D 9		
5004	F 3		
5100	I 6		
6002	G12		
6003	K 7		
6007	F24		
6100	H 3		
6106	J 3		
6107	J 3		
7001	F15		
7002	H12		
7003	G13		
7004	H 9		
7005	K13		
7006	J14		
7007	I16		
7008	E24		
7009	J15		
7102	K 3		
7103	K 4		
7104	I 3		
9000	D 9		
9001	D 7		
9002	D14		
9003	H24		
9004	I23		
9005	E19		
9006	K23		
9007	F19		
9008	E 8		
9009	E23		
9010	J24		
9011	D24		
9012	K23		
9013	J23		
9014	H23		
9015	H23		
9016	D14		
9017	F 3		
9200	G23		
9203	I23		
9204	J25		
9205	K24		
9206	I25		
9207	G23		
9209	J25		

Third scart module


N
A
CHASSIS
X49
SCART PLUG
1900
1901
1902
1903
2964 2n2
3987 4K7
A012
3951 150
2951 2n2
A031
3952 150
2965 2n2
2952 2n2
A034
A046
2960 220n
2961 220n
A053
3963 100k
+9V
7953 BC848C
2953 100p
3967 100k
3964 3K3
A035
3965 100k
7954 BC848C
A054
A008
3953 3k3
A007
3954 3k3
A009
2962 220n
2963 220n
2954 100p
3968 100k
3966 3K3
A030
2955 470n
3986 6K8
A003
2981 22n
3980 220
A006
2975 100u
7975 BC848
A004
A001
3975 75
3976 1K
A005
3979 100
A023
A037
3962 68K
A044
3970 68K
A010
3961 68K
A042
9904
3969 68K
gnd1
2980 100n
A025
7951 BC848C
7952 BC848C
3960 3K3
3959 3K3
7950 4053
A013
2956 470n
3955 330k
A015
A016
2957 470n
3956 330K
3958 330K
3957 330K
A014
A017
A029
A021
A020
A024
A018
A019
3990 100
A047
STATUS SCART 3
A039
EXT3-switch
A041
A032
3992 150
3991 150
A033
2959 470n
2958 470n
A040
3972 10k
3971 15k
7979 BC848C
A050
9901
3 X31 1M31
2 X31 2M31
1 X31 3M31
1 X94 9E94 TERR AUDIO L IN
2 X94 8E94 TERR AUDIO RIN
3 X94 7E94 AUDIO CONN R
4 X94 6E94 AUDIO CONN L
5 X94 5E94
6 X94 4E94 TERR CVBS
7 X94 3E94 GND
8 X94 2E94 CVBS
9 X94 1E94 NC
EURO TXT
+9A
9906
A045
5950 5u6
A052
2950 100u
3974 10k
A051
A002
6950 1N4148
3977 100
A022
3973 2k2
BC858C 7977
3978 75
A036
9902
A055
3999
A056
A043
3982 100
3981 470
A026
A028
2978 4u7
7976 BC848C
A027
3983 470
3985 2k2
BC858C 7978
A049
3988 1k8
3989 1k8
1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H I

1900	A 2
1901	B 2
1902	B 2
1903	B 2
2950	G12
2951	A 3
2952	A 4
2953	B 5
2954	C 5
2955	B 9
2956	C 9
2957	C10
2958	D12
2959	D12
2960	A 5
2961	A 5
2962	B 6
2963	B 6
2964	A 2
2965	A 4
2975	C 5
2978	I 9
2980	E 7
2981	C 1
3951	A 3
3952	A 4
3953	B 4
3954	B 4
3955	C10
3956	D10
3957	D11
3958	D11
3959	G 7
3960	F 7
3961	D 7
3962	C 7
3963	A 6
3964	B 6
3965	B 7
3966	C 7
3967	B 6
3968	C 7
3969	D 7
3970	C 7
3971	E11
3972	E12
3973	G 4
3974	G 3
3975	D 4
3976	E 4
3977	H 3
3978	H 2
3979	D 5
3980	C 4
3981	H 8
3982	H 7
3983	I 8
3985	H11
3986	C 2
3987	A 1
3988	H11
3989	H11
3990	A12
3991	B12
3992	B12
3999	I 5
5950	G13
6950	H 3
7950	C 9
7951	F 7
7952	F 6
7953	A 6
7954	B 7
7975	D 4
7976	I 8
7977	H 4
7978	H11
7979	E11
9901	G 8
9902	H 5
9904	D 7
9906	G12
A001	D 3
A002	G 2
A003	C 2
A004	D 4
A005	D 5
A006	C 4
A007	B 4
A008	B 4
A009	B 5
A010	D 7
A012	A 2
A013	C 9
A014	D10
A015	C11
A016	C 9
A017	D11
A018	F10
A019	F 8
A020	E10
A021	D10
A022	H 3
A023	D 6
A024	E 8
A025	E 7
A026	I 7
A027	I 9
A028	H 8
A029	D11
A030	B 9
A031	A 3
A032	B12
A033	C12
A034	B 3
A035	A 7
A036	H 5
A037	C 7
A039	A13
A040	C13
A041	B12
A042	D 7
A043	H 8
A044	C 7
A045	G12
A046	A 5
A047	A12
A049	H11
A050	E12
A051	G 3
A052	G13
A053	A 6
A054	B 7
A055	I 5
A056	I 6
X31	A13
X31	A13
X31	A13
X49	A 2
X94	E13
X94	F13
X94	F13
X94	F13
X94	G13
X94	G13
X94	H13
X94	H13
X94	H13

7. Elektrische Abgleicharbeiten

Abgleichbedingungen

Alle elektrischen Abgleicharbeiten müssen unter folgenden Bedingungen stattfinden:

- * Speisespannung: 220 - 240 V ± 10%; 50 Hz ± 5%
- * Aufwärmzeit: ca. 10 Minuten
- * Die Spannungen und Oszillogramme werden gegen Tuner-Masse gemessen.
- * Tastkopf: Ri > 10 MΩ; Ci < 2,5 pF.

1. Abgleicharbeiten auf der Trägerplatine

1.1 +148V/+95V-Speisespannung

Ein Voltmeter über C2631 anschließen.
Mit R3635 die Speisespannung bei 25"- und 28"-Geräten auf + 148 V ± 0,5 V einstellen und bei 21"-Geräten auf + 95 V ± 0,5 V.

1.2 Fokussierung

Die Fokussierung wird mit dem Fokuspotentiometer (dem obersten auf dem Zeilentransformator) eingestellt.

1.3 Vg2-Einstellung

Einen Bildmustergenerator anschließen und ein Austastsignal (schwarzes Bild) zuführen. Das Gerät auf Service-Default-Betrieb schalten (siehe Kapitel 9). Ein Oszilloskop an die Emitter der Transistoren 7304 und 7364 des Bildröhrenmoduls anschließen. Das Oszilloskop auf die Bildfrequenz einstellen. Den Gleichspannungspegel der Meßimpulse messen (siehe Abb. 7.1).
Mit dem Vg2-Potentiometer am Zeilentransformator den Meßimpuls mit dem niedrigsten Gleichspannungspegel einstellen auf:

- * +130 V ± 5 V für alle Geräte.

1.4 Horizontalsynchronisation

Pin 5-IC7470 mit Pin 9-IC7470 verbinden. Ein Antennensignal zuführen und Empfänger abstimmen.
Im Service-Menü (siehe Sektion 9), Sync.Frequ. mit der Menü +/- Taste abgleichen bis das Bild glatt ist.
Entfernen Sie die Zusammenschaltung.

1.5 Horizontalzentrierung

Die Horizontalzentrierung wird mit Potentiometer 3461 eingestellt.

1.6 Vertikalzentrierung

Die Vertikalzentrierung wird mit Potentiometer 3516 eingestellt.

1.7 Bildhöhe

Die Bildhöhe wird mit Potentiometer 3504 eingestellt.

1.8 Bildbreite

Die Bildbreite wird mit Potentiometer 3525 eingestellt.

1.9 Ost/West-Korrektur

Wird mit Potentiometer 3521 eingestellt.

1.10 Chroma-Bandpaßfilter

a. Einstellung für PAL/SECAM-Geräte (TDA4657)

Einen Signalgenerator (z.B. PM5138) an Pin 20 des Euro-AV-Anschlusses (EXT1) anschließen und die Frequenz auf 4,286 MHz/mV$_{RMS}$ Vpp einstellen. Das Gerät auf EXT1 schalten.
Verbinden an Pin 9-IC7306 ein Oszilloskop. Stellen Sie 5301 auf maximale Amplitude ein. Die Verbindung entfernen.

b. Einstellung für PAL-Geräte (TDA4510)

Einen Signalgenerator (z.B. PM5138) an Pin 20 des Euro-AV-Anschlusses (EXT1) anschließen und die Frequenz auf 4,43 MHz einstellen. Das Gerät auf EXT1 schalten. Ein Oszilloskop an Pin 9-IC7305 (TDA4510) anschließen.
5301 auf die maximale Amplitude einstellen.

1.11 Der Chroma-Hilfsoszillator

Einen Bildmustergenerator anschließen und ein PAL-Farbbalkenmuster zuführen. Pin 11-IC7305 (TDA4510) mit Masse verbinden.
2313 so einstellen, daß die Farbe auf dem Bildschirm praktisch zum Stillstand kommt. Die Verbindung entfernen.

1.12 Weißabgleich

Einen Bildmustergenerator anschließen und ein weißes Bild wählen. Das Service-Menü einschalten (siehe Kapitel 9) und "WHITE BALANCE" wählen.
Die Werte von Grün ("Green") auf 50 einstellen.
Die Werte von Blau ("Bleu") auf 45 einstellen. Die Werte von Rot ("Red") auf 57 einstellen.
Meistens braucht man keine weitere Einstellung.

1.13 Weißpegel-Spitzenbegrenzung

Das Service-Menü einschalten (siehe Kapitel 9) und "WHITE BALANCE" wählen. "WHITE LIMIT" auf folgende Werte einstellen:

- 35 für 'Black-line' Geräte
- 51 für 'non-Black-line' Geräte
- 63 für 21" 110 Grad Geräte
- 45 für 29" Geräte

1.14 Sperrpunkte der Bildröhre

Einen Bildmustergenerator anschließen und ein schwarzes Bild wählen. Das service-Menü einschalten (Abb.9) und "CUT OFF" wählen. Die Werte von Rot ("Red") auf 30; von Grün ("Green") auf 30, und von Blau ("Blue") auf 30 einstellen. Meistens braucht man keine weitere Einstellung.

1.15 Optionen

Das Service-Menü einschalten und "OPTION " oder "OPTION 1" wählen. Die Optionen einschalten ("ON") oder ausschalten ("OFF"), je nachdem, ob folgende Optionen vorhanden sind:

- "THIRD SCART" bei einem Gerät mit drittem Scart
- "TELETEXT" bei einem Gerät mit Videotext
- "MULTI SYSTEM" für Multisystem-Geräte
- "UHF ONLY" für einen Tuner, der nur im UHF-Band abgestimmt werden kann.
- "NICAM" für Stereo-Geräte, die gleichzeitig auch NICAM-Ton empfangen können.

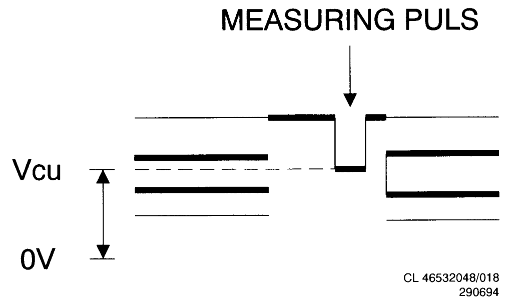


Abb. 7.1

2.1 RF-AGC

Wenn das Bild von einem starken Lokalsender verzerrt wird, können Sie mit der Hilfe von 3016 die Bildverzerrung aufheben.

2.2a MF-AFC Für Mehrsystem-Geräte (PAL-BG/SECAM-DK).

Verbinden Sie einen Mustergenerator an Pin 8 von Stecker G29 (IF-Modul) und wählen Sie eine Frequenz von 38,9 MHz. Verbinden Sie einen Spannungsmesser an Pin 11 von Stecker G 29. Stellen Sie mit 5001 die Direktstromspannung auf 1,9V ein.

2.2b MF-AFC Für alle anderen Geräte.

Verbinden Sie einen Mustergenerator an Pin 8 von Stecker G29 (IF-Modul) und wählen Sie eine Frequenz von 38,9 MHz. Verbinden Sie einen Spannungsmesser an Pin 11 von Stecker G 29. Stellen Sie mit 5001 die Direktstromspannung auf 2,3 V ein.

2.3 Stereo Matrix

Verbinden Sie einen Mustergenerator und speisen Sie ein PAL BG-Signal mit Stereo-Ton. Wählen Sie nur den rechtsgelegenen Kanalton. Aktivieren Sie den Service-Mode. Wählen Sie SND-Stereo und ziehen Sie den rechten Stecker heraus (von der Vorderseite des Gerätes aus gesehen). Stellen Sie die Lautstärke mit dem Tonregler auf das Maximum ein. Gleichen Sie mit dem Menü-Knopf aus, so daß der Ton im linken Lautsprecher gerade nicht zu hören ist. Verlassen Sie jetzt den Service-Mode indem Sie das Gerät in die Bereitschaft schalten.

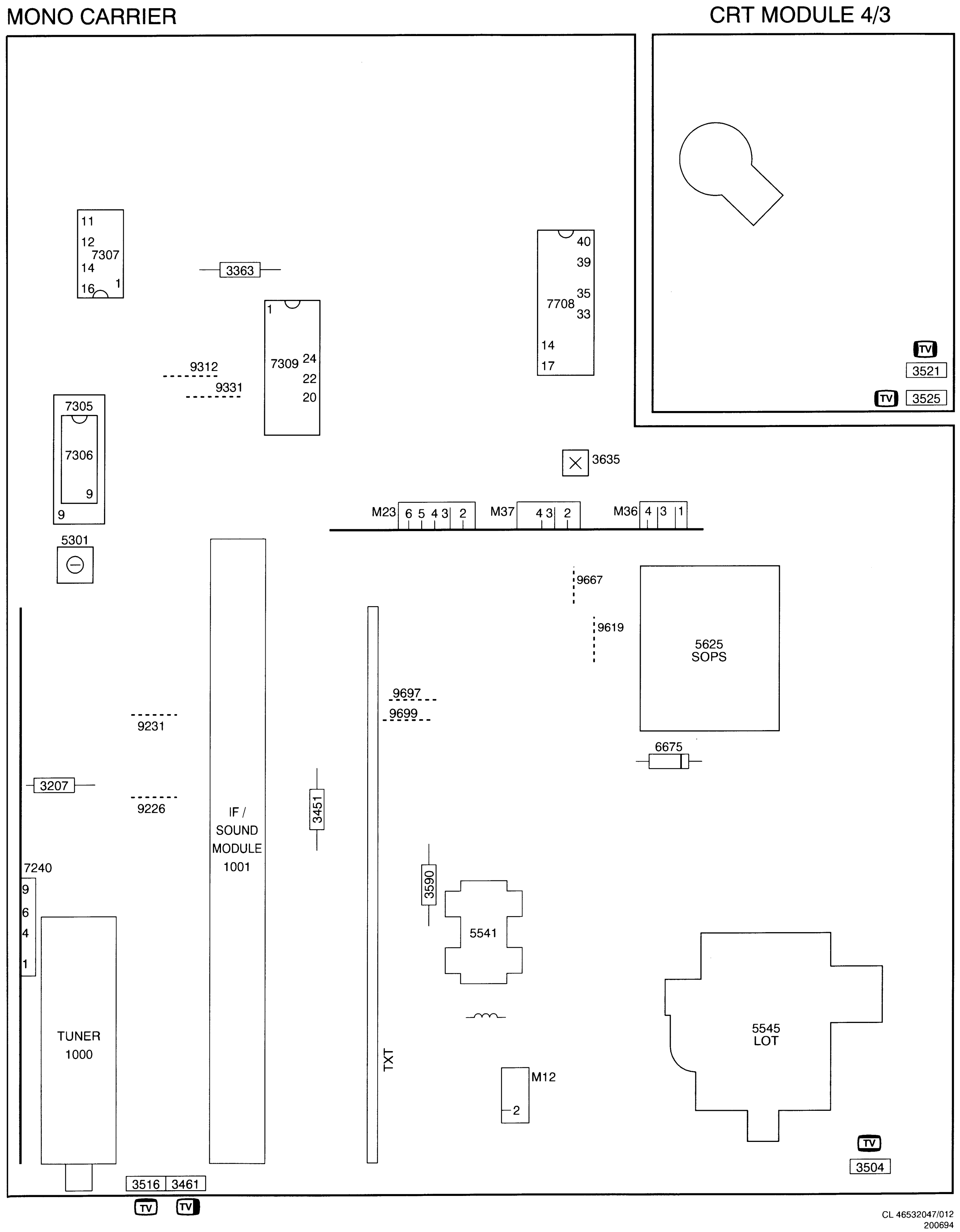
8. Fehlermeldungen Übersicht auf dem Bildschirm

Mitteilung auf dem Bildschirm	Beschreibung	Mögliches Fehler
PIP	I^2C-Fehler PIP-Module	+5 auf PIP-Module, IC7406
NICA	I^2C-Fehler IC7305 (NICAM Geräte)	IC7305, +5 auf ZF-Module
9860	I^2C-Fehler IC7204	+5/+8 auf ZF-Module, IC7305
9840	I^2C-Fehler IC7205	+5/+8 auf ZF-Module, IC7205
TXT	I^2C-Fehler TXT-Module	IC7910/IC7920, +5 auf TXT-Module
EPROM	I^2C-Fehler IC7710	IC7708/IC7710, +5 auf IC's
TUNE	I^2C-Fehler Kanalwähler	+5/+14 auf Kanalwähler, TS7003
CHR1	I^2C-Fehler IC7308	+14 auf IC7308
CHR2	I^2C-Fehler IC7309	+14 auf IC7309
6415	I^2C-Fehler IC7820	
BUS + blinkendes LED	I^2C Bus blockiert	I^2C Bus auf allen ICs kontrollieren

Fehlermeldungen

Interne Mikrocomputer- und externe Fehler werden mit Fehlernummern auf dem Bildschirm (OSD) und mit einem Dauerblinker auf dem LED gemeldet (nur Fehler, die im Zusammenhang mit Video stehen).

Die letzten fünf Fehler werden (falls möglich) im nichtflüchtigen Speicher bewahrt, Fehler-Puffer genannt. Nachdem das System eingeschaltet wurde (über den Netzschalter oder Stand-by) wird nur ein Fehler dem Puffer zugeführt (first-in-first-out-Verfahren). Es werden nur die Fehler dem Puffer zugeführt, die sich von dem zuletzt zum Puffer gesandten Fehler unterscheiden. Der Fehlerpuffer wird freigemacht, wenn das 'Stand-by'-Kommando gegeben wurde während sich das System im Service-Menü-Modus befindet. Ein aktiver Fehler wird ununterbrochen im Service-Default-Modus gezeigt. Der Puffer wird im Service-Menü-Modus gezeigt. (Service-Hauptmenü).



9. Bedienungsanleitung

1. Service-Default-Mode

Das GR2.4 hat einen Service-Default-Mode, der ein fest definierter Zustand ist, in den das Gerät eingestellt werden kann.

1.1 Definition des Zustands

Der feste Zustand im Service-Default-Betrieb ist folgendermaßen definiert:
- alle Ton- und Bildregler sind auf mittlere Werte eingestellt, (Volumen wird jedoch auf leise eingestellt und Zoom auf Null) in 4/3 Position.
- Gerät wird auf 475,25 MHz abgestimmt.
- System:

* PAL BG, oder PAL I für Einzelnorm-System Geräte (MULTI-SYSTEM "OFF")
* SECAM L/DK für Mehrnormen-System Geräte (MULTI-SYSTEM "ON")
* SECAM DK für Geräte für Ost-Europa (MULTI-SYSTEM "ON")
* PAL BG für Geräte für Ost-Europa (MULTI-SYSTEM "OFF").

1.2 Ein- und Ausschalten

Der Service-Default-Betrieb wird aktiviert, indem die Pins M33 und M34 (SERVICE) hinter der INSTALL-Taste auf der Trägerplatine während des Einschaltens des Gerätes mit dem Netzschalter kurzgeschlossen werden. Zur Anzeige, daß das Gerät auf Service-Default-Betrieb geschaltet ist, wird auf dem Bildschirm ein "SER" dargestellt.
Der Service-Default-Betrieb kann nur durch Umschalten des Gerätes auf Bereitschaft (⏻) deaktiviert werden. Wenn das Gerät mit dem Netzschalter oder dem Netzstecker aus- und wieder eingeschaltet wird, bleibt der Service-Default-Betrieb weiterhin aktiviert.
Suchen der Senderfrequenz beginnt, nachdem beide "Install" Tasten (Fernbedienung) gleichzeitig betätigt wurden. Bei aktiviertem Service-Menü sind die folgenden Funktionen ausgeschaltet:
- automatisches Abschalten

In diesem Service-Menü kann das Gerät normal bedient werden.

1.3 Bedienung und zusätzliche Möglichkeiten

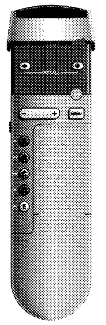
Neben der normalen Bedienung des Gerätes stehen im Service-Default-Betrieb zwei weitere Funktionen zur Verfügung:
- Servicemenü
  Das Servicemenü wird durch gleichzeitiges Betätigen der Tasten 'Menü" und "-" auf dem lokalen Bedienungsfeld aktiviert (oder durch das Betätigen beider "Install" Tasten auf der Fernbedienung). Danach wird das Service-Menü auf dem Bildschirm angezeigt.
  Das Service-Menü bietet die Möglichkeit, verschiedene Parameter und Bildröhren-Einstellungen vorzunehmen. Die verschiedenen Optionen im Service-Menü können mit den farbigen Tasten der Fernbedienung gewählt werden. Die verschiedenen Parameter werden mit der "Menü +/-" Taste auf der Fernbedienung eingestellt.
  Die eingestellten Werte und Optionen werden, wenn dieses Menü verlassen wird, sofort durch Betätigen der Taste von "Menü on oder Mains off", im EEPROM gespeichert. Mit der Taste "Menü on" gelangen Sie wieder in das "Default" Service-Menü.

Bemerkung 1:
Wenn ein Mehrnormen-Gerät in dem Service-Default-Mode doch mit dem PAL BG System benutzt werden soll, kann die Option "MULTI" vorübergehend ausgeschaltet werden ("OFF").

Bemerkung 2:
Wenn ein Mehrnormen-Gerät für Ost-Europa in dem Service-Default-Mode doch mit dem System PAL BG benutzt werden soll, kann die Option "MULTI" vorübergehend ausgeschaltet werden ("OFF").

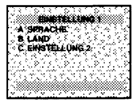
9. Bedienungsanleitung

Aufruf des Einstellungsmenüs



Dieses Menü ermöglicht die Einstellung der Sender am Fernsehgerät.

- ○ Die Klappe der Fernbedienung öffnen.
- ○ Die 2 Tasten ⊕ und ◉ gleichzeitig drücken.
- ▷ Dann wird das Menü **EINSTELLUNG 1** auf dem Bildschirm angezeigt.



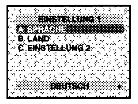
EINSTELLUNG 1
A SPRACHE
B LAND
C EINSTELLUNG 2

Auswahl der Menüsprache

Sie können zwischen mehreren Sprachen für die auf dem Bildschirm angezeigten Menüs wählen.
Sie können **DEUTSCH** oder eine der anderen vorgeschlagenen Sprachen wählen.

Nach Aufruf des Menüs **EINSTELLUNG 1** :

- ○ Die rote Taste Ⓐ drücken.
- ▷ Dann erscheint ein Anzeigefeld unten auf dem Bildschirm.
- ○ Die Taste (− +) zur Wahl der von Ihnen gewünschten Sprache drücken.
- ▷ Der Text aller Menüs wird dann in der von Ihnen gewählten Sprache angezeigt. Dann zur nächsten Einstellung übergehen..



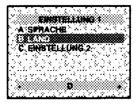
EINSTELLUNG 1
A SPRACHE
B LAND
C EINSTELLUNG 2
DEUTSCH

Wahl des Landes

Jetzt wird das Land gewählt, in dem Sie sich befinden.

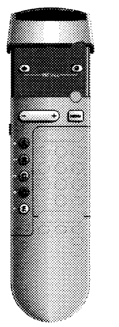
Nach Aufruf des Menüs **EINSTELLUNG 1** :

- ○ Die grüne Taste Ⓑ drücken.
- ▷ Dann erscheint ein Anzeigefeld unten auf dem Bildschirm.
- ○ Die Taste (− +) zur Wahl des Ihrem Land entsprechenden Buchstabens (D für Deutschland) drücken.
- ▷ Ihre Wahl wird unten auf dem Bildschirm angezeigt. Jetzt können Sie mit der Einstellung der Sender beginnen.



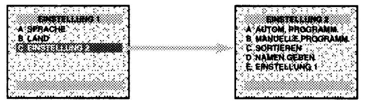
EINSTELLUNG 1
A SPRACHE
B LAND
C EINSTELLUNG 2
D

Suche der Fernsehsender



Vom Menü **EINSTELLUNG 1** aus :

- ○ Die gelbe Taste Ⓒ drücken.
- ▷ Das Menü **EINSTELLUNG 2** wird auf dem Bildschirm angezeigt.



EINSTELLUNG 1
A SPRACHE
B LAND
C EINSTELLUNG 2

EINSTELLUNG 2
A AUTOM. PROGRAMM.
B MANUELLE PROGRAMM.
C SORTIEREN
D NAMEN GEBEN
E EINSTELLUNG 1

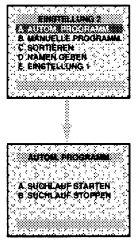
Sie haben die Wahl zwischen zwei Methoden :

- **automatische Programmierung** : der Fernseher speichert alle in Ihrem Gebiet empfangbaren Sender. Sie brauchen sie dann nur noch entsprechend Ihren Wünschen zu numerieren.
- **manuelle Programmierung** : Sie müssen die Einstellung der einzelnen Sender selbst vornehmen.

Automatische Programmierung

Nach Aufruf des Menüs **EINSTELLUNG 2** (siehe oben) :

- ○ Die rote Taste Ⓐ drücken.
- ▷ Das Menü **AUTOM. PROGRAMM.** wird angezeigt.
- ○ Die rote Taste Ⓐ zum Starten der Suche drücken.
- ▷ Auf dem Bildschirm wird die Meldung **SUCHEN BITTE WARTEN** angezeigt. Der Fernseher durchläuft das gesamte Frequenzband und speichert alle Sender, die er empfängt. Die Suche dauert einige Minuten. Eine horizontale Skala zeigt den Ablauf der Suche an. **Sie müssen warten, bis der waagrechte Balken am Ende der Zeile angekommen ist.**



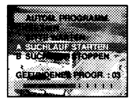
EINSTELLUNG 2
A AUTOM. PROGRAMM.
B MANUELLE PROGRAMM.
C SORTIEREN
D NAMEN GEBEN
E EINSTELLUNG 1

AUTOM. PROGRAMM.
A SUCHLAUF STARTEN
B SUCHLAUF STOPPEN

Wenn die Suche abgeschlossen ist :

blinkt die Meldung **GEFUNDENE PROGR.** und die Gesamtzahl der gefundenen Programme wird angezeigt. Die Sender wurden in der Reihenfolge numeriert, in der sie gefunden wurden. Sie müssen sie daher neu ordnen, um ihnen die von Ihnen gewünschten Nummern zuzuordnen :

- ○ Die Taste MENU drücken.
- ▷ Das Menü **EINSTELLUNG 2** wird angezeigt. Jetzt können Sie die Sortierung vornehmen : blättern Sie die Seite um und schlagen Sie Kapitel 8 auf.

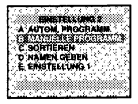


AUTOM. PROGRAMM.
A SUCHLAUF STARTEN
B SUCHLAUF STOPPEN
GEFUNDENE PROGR. : 03

Manuelle Programmierung

Nach dem Aufruf des Menüs **EINSTELLUNG 2** (siehe vorstehende Seite) :

- ○ Die grüne Taste Ⓑ drücken.
- ▷ Das Menü **MANUELLE PROGRAMM.** wird angezeigt.



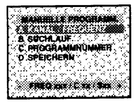
EINSTELLUNG 2
A AUTOM. PROGRAMM.
B MANUELLE PROGRAMM.
C SORTIEREN
D NAMEN GEBEN
E EINSTELLUNG 1

Schritt a

Wahl des Suchlaufs

Dieser Fernseher bietet Ihnen die Möglichkeit den Suchlauf nach Kanal oder Frequenz zu wählen :
Suche nach Kanal (wenn Sie die Sendekanäle der Fernsehsender kennen) oder **Suche nach Frequenz**.

- ○ Die rote Taste Ⓐ drücken.
- ▷ Das untere Band des Menüs wird rot angezeigt.
- ○ Die Taste (− +) zur Wahl der Suchart drücken.
- ▷ Die Angabe **FREQ xxx MHZ** zeigt an, daß die Suche nach Frequenz gewählt ist. Die Angabe **C** xx oder **S** xx zeigt an, daß die Suche nach Kanal gewählt ist. Zum **Schritt b** übergehen.



MANUELLE PROGRAMM.
A KANAL / FREQUENZ
B SUCHLAUF
C PROGRAMMNUMMER
D SPEICHERN
FREQ xxx / C xx / Sxx

Direkter Aufruf eines Senders

Wenn Sie die Frequenz oder den Kanal des Senders kennen, den Sie empfangen möchten, können Sie die entsprechende Zahl direkt anhand der von ⓪ bis ⑨ numerierten Zahlentasten oder mit der Taste (− P +) eingeben.
Beispiel : bei Suche nach Frequenz müssen Sie für 64 MHz 064 eingeben ;
bei Suche nach Kanal müssen Sie, für C21, 21 eingeben (zur Eingabe von 64,25 MHz nur 064 eingeben; die Feineinstellung erfolgt automatisch).
Direkt zum Schritt C übergehen.

Schritt b

Suchlauf

- ○ Die grüne Taste Ⓑ drücken.
- ▷ Das untere Band des Menüs wird grün angezeigt und der Suchlauf beginnt. Die Frequenz- oder Kanalnummern laufen durch. Sobald ein Sender gefunden wird, hält der Suchlauf an und das Rechteck wird blau angezeigt.

  Wenn Sie diesen Sender beibehalten wollen, **gehen Sie zum Schritt C über**.

  Wenn Sie diesen Sender nicht behalten wollen :
- ○ Erneut die grüne Taste Ⓑ drücken.
- ▷ Der Suchlauf wird fortgesetzt.

MANUELLE PROGRAMM.
A KANAL / FREQ
B SUCHLAUF
KANAL / FREQUENZ

Feineinstellung

Wenn der Empfang eines Fernsehsenders nicht zufriedenstellend ist, können Sie dessen Frequenz oder den Kanal mit der Taste (− +) einjustieren.

Schritt c

Programmnummer

- ○ Die gelbe Taste Ⓒ drücken.
- ▷ Ein Anzeigebereich erscheint unten auf dem Bildschirm.
- ○ Die Taste (− P +) oder die von ⓪ bis ⑨ numerierten Tasten zur Wahl der Programmnummer drücken. Zum **Schritt d** übergehen.

MANUELLE PROGRAMM.
A KANAL / FREQ
C PROGRAMMNUMMER
P xx

Schritt d

Speichern

- ○ Die blaue Taste Ⓓ drücken.
- ▷ Die Angabe **PROGR. GESPEICHERT** wird unten auf dem Bildschirm angezeigt; dann ist der Sender gespeichert.

MANUELLE PROGRAMM.
A KANAL / FREQ
D SPEICHERN
PROGR. GESPEICHERT

erneut

Die Schritte **b**, **c**, **d**
oder **a**, **b**, **c**, **d** wenn Sie den Suchlauf ändern wollen.

Wenn der Sendersuchlauf beendet ist

- ○ Die Taste MENU drücken.
- ▷ Das Menü **EINSTELLUNG 2** wird angezeigt.

  Jetzt können Sie den Programmen einen Namen geben : Umblättern, **zum Kapitel 9**.

Zum Verlassen des Menüs EINSTELLUNG 2 :

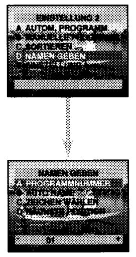
- ○ Erneut die Taste MENU drücken.
  Jetzt können Sie Ihren Fernseher benutzen (Seite 9).

Name des Programms

Die ersten 40 Sender Ihres Fernsehers können Sie mit einem aus 5 Zeichen bestehenden Namen bezeichnen (Beispiele : ARD, ZDF...). Dank dieser Funktion kann man den Namen und die Nummer des angezeigten Programms erkennen und anzeigen.

Vom Menü **EINSTELLUNG 2** aus :

- ○ Die blaue Taste Ⓓ drücken.
- ▷ Das Menü **NAMEN GEBEN** wird angezeigt.



EINSTELLUNG 2
A AUTOM. PROGRAMM
C SORTIEREN
D NAMEN GEBEN

NAMEN GEBEN
A PROGRAMMNUMMER
B AUTO NAME
C ZEICHEN WÄHLEN
D NÄCHSTE POSITION
01

Schritt a Programmnummer

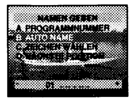
- ○ Die rote Taste Ⓐ zur Wahl der Programmnummer drücken.
- ▷ Die Programmnummer wird unten auf dem Bildschirm angezeigt.
- ○ Verwenden Sie die Taste (− +) oder die von ⓪ bis ⑨ numerierten Tasten zur Wahl des Senders, den Sie mit einem Namen versehen wollen.

Schritt b Auto Name

Die Funktion **AUTO NAME** ermöglicht die automatische Eingabe der ersten 5 Zeichen für den Namen des Programms, wenn er im Videotext zur Verfügung steht.

Wenn der Sender auf dem Bildschirm angezeigt ist :

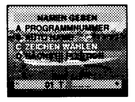
- ○ Die grüne Taste Ⓑ drücken.
- ▷ Das untere Band des Menüs wird grün angezeigt.
- ○ Die Taste (− +) zur Aktivierung der Funktion **AUTO NAME** drücken.
- ▷ Die ersten 5 Zeichen des Programmnamens werden angezeigt. Wenn nichts angezeigt wird, ist der Programmname nicht kodiert, Übergang zum **Schritt C**.



NAMEN GEBEN
A PROGRAMMNUMMER
B AUTO NAME
C ZEICHEN WÄHLEN
01

Schritt c Zeichen wählen

- ○ Die gelbe Taste Ⓒ drücken.
- ▷ Der Anzeigebereich für Zeichen wird angezeigt. Ein Cursor ist auf dem ersten Zeichen positioniert.
- ○ Verwenden Sie die Taste (− +) zur Anzeige (oder Änderung) des ersten Zeichens.

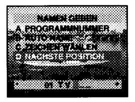


NAMEN GEBEN
A PROGRAMMNUMMER
C ZEICHEN WÄHLEN
01 T

Schritt d Nächste Position

Wenn das richtige Zeichen gewählt ist :

- ○ Die blaue Taste Ⓓ zum Verschieben des Cursors drücken.
- ▷ Verwenden Sie die Taste (− +), um ihn nach links oder nach rechts zu verschieben.
- ○ Erneut die gelbe Taste Ⓒ drücken.
- ▷ Verwenden Sie die Taste (− +), um das zweite Zeichen anzuzeigen. Diese Schritte so oft wiederholen, wie Zeichen einzugeben sind.



NAMEN GEBEN
A PROGRAMMNUMMER
C ZEICHEN WÄHLEN
D NÄCHSTE POSITION
01 T V

erneut die Schritte **a**, **b**, **c** und **d** so oft wiederholen wie Programmnamen einzugeben sind.

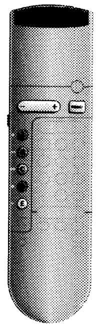
Zum Verlassen des Menüs NAMEN GEBEN :

- ○ Die Taste MENU drücken.
- ▷ Das Menü **EINSTELLUNG 2** wird wieder angezeigt.

Zum Verlassen des Menüs EINSTELLUNG 2 :

- ○ Erneut die Taste MENU drücken.

Aufruf des Hauptmenüs



Das Hauptmenü ermöglicht den Zugang zu den Einstellungen und Sonderfunktionen Ihres Fernsehers.

Die Taste MENU ermöglicht den Aufruf oder das Verlassen des Menüs.

Die farbigen Tasten Ⓐ, Ⓑ, Ⓒ, Ⓓ und Ⓔ ermöglichen den Zugang zu den verschiedenen Menüpunkten.
Die Taste (− +) ermöglicht das Durchführen der Einstellungen.

Zum Aufruf des HAUPTMENÜS:

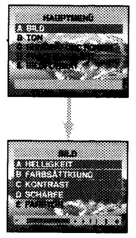
- ○ Die Taste MENU der Fernbedienung drücken.
- ▷ Das **HAUPTMENÜ** wird auf dem Bildschirm angezeigt.

HAUPTMENÜ
A BILD
B TON

Bildeinstellung

Nach Aufruf des **HAUPTMENÜS** (siehe oben) :

- ○ Die rote Taste Ⓐ drücken.
- ▷ Das Menü **BILD** wird auf dem Bildschirm angezeigt.



HAUPTMENÜ
A BILD
B TON

BILD
A HELLIGKEIT
B FARBSÄTTIGUNG
C KONTRAST
D SCHÄRFE
E FARBTON

Helligkeit, Farbsättigung, Kontrast, Schärfe

- ○ Die farbige Taste Ⓐ, Ⓑ, Ⓒ oder Ⓓ entsprechend der Einstellung drücken, die Sie ändern möchten.
- ▷ Eine horizontale Skala wird unten auf dem Bildschirm angezeigt.
- ○ Die Taste (− +) für die Einstellung drücken.
- ▷ Der Cursor bewegt sich entsprechend Ihrer Einstellung.
- ○ Eine der farbigen Tasten für eine andere Einstellung drücken.

Farbton

Die Einstellung des Farbton ermöglicht die Beeinflussung der Farbwiedergabe durch Änderung der Referenz für weiß.

- ○ Die weiße Taste Ⓔ drücken.
- ▷ Eine horizontale Skala wird unten auf dem Bildschirm angezeigt.
- ○ Die Taste (− +) für die Einstellung drücken.
- ▷ Um ein "warmes" Bild zu erhalten (roteres Weiß) : den Cursor auf die maximale Position (+) stellen.
- ▷ Um eine ausgeglichene Farbwiedergabe zu erhalten : den Cursor in die mittlere Position stellen.
- ▷ Um ein "kaltes" Bild zu erhalten (blaueres Weiß) : den Cursor in die minimale Position (-) stellen.

BILD
A HELLIGKEIT
B FARBSÄTTIGUNG
E FARBTON

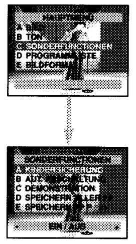
Zum Verlassen des Menüs BILD

- ○ Die Taste MENU drücken.
- ▷ Das **HAUPTMENÜ** wird wieder angezeigt, zur Toneinstellung übergehen.
- ○ Zum Verlassen des **HAUPTMENÜS** die Taste MENU ein zweites Mal drücken.

Sonderfunktionen

Vom **HAUPTMENÜ** aus :

- ○ Die gelbe Taste Ⓒ drücken.
- ▷ Das Menü **SONDERFUNKTIONEN** wird auf dem Bildschirm angezeigt.



HAUPTMENÜ
A BILD
B TON
C SONDERFUNKTIONEN
D PROGRAMMLISTE
E BILDFORMAT

SONDERFUNKTIONEN
A KINDERSICHERUNG
B AUT. ABSCHALTUNG
C DEMONSTRATION
D SPEICHERN ALLER
E SPEICHERN P.
EIN / AUS

Kindersicherung

Die Funktion der Kindersicherung ist ein elektronischer Schlüssel, der die Tasten des Fernsehers unwirksam macht. Diese Funktion ermöglicht es Ihnen, die Benutzung des Fernsehers zu sperren (z.B. für die Kinder). Dazu brauchen Sie nur die Verriegelung zu aktivieren und die Fernbedienung zu verstecken und der Fernseher kann nicht benutzt werden.

Vom Menü **SONDERFUNKTIONEN** aus :

- ○ Die rote Taste Ⓐ drücken.
- ▷ Die Angabe **AUS** wird unten auf dem Bildschirm angezeigt.
- ○ Die Taste (− +) drücken.
- ▷ Die Angabe **EIN** wird angezeigt. Die Tasten des Fernsehers werden unwirksam.

Zur Funktionskontrolle :

- ○ Die Taste ⏻ zum Ausschalten vorne am Fernseher drücken.
- ○ Die Taste ⏻ erneut zum Einschalten drücken.
- ▷ Der Fernseher bleibt in Bereitschaftsposition (die Kontrollampe leuchtet rot).
- ○ Die Tasten des Fernsehers betätigen.
- ▷ Die Angabe **KINDERSICHERUNG** wird kurz auf dem Bildschirm angezeigt und der Bildschirm bleibt dunkel.
  Jetzt kann der Fernseher nur noch mit der Fernbedienung eingeschaltet werden.

Zur Aufhebung der Kindersicherung :

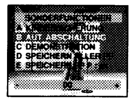
- ○ Die Einstellung neu durchführen und die Anzeige des Menüs auf **AUS** stellen.

Automatische Abschaltung

Diese Funktion ermöglicht die Programmierung für ein automatisches Abschalten des Fernsehers.

Vom Menü **SONDERFUNKTIONEN** aus :

- ○ Die grüne Taste Ⓑ drücken.
- ▷ Unten auf dem Bildschirm wird 00 angezeigt.
- ○ Die Taste (− +) für die Programmierung der Einschaltdauer drücken.
- ▷ Nach jedem Drücken wird die Einschaltdauer um 15 Minuten erhöht (bis maximal 90).
- ○ Zum Verlassen des Menüs die Taste MENU zweimal drücken.
- ▷ Der Fernseher schaltet nach abgelaufener Zeit automatisch in die Bereitschaftsposition.



SONDERFUNKTIONEN
A KINDERSICHERUNG
B AUT. ABSCHALTUNG
C DEMONSTRATION
D SPEICHERN ALLER
E SPEICHERN P.
00

Für die Anzeige der noch verbleibenden Einschaltdauer :

- ○ Die Taste ⊚ drücken.
- ▷ Die noch verbleibende Einschaltdauer wird kurzzeitig auf dem Bildschirm angezeigt.

Zur Aufhebung der Programmierung :

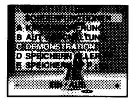
- ○ Die Einstellung neu durchführen und die Anzeige des Menüs auf 00 stellen.

Demonstration

Die Betriebsart **DEMONSTRATION** löst die automatische Anzeige aller Menüs des Fernsehers aus.

Vom Menü **SONDERFUNKTIONEN** aus :

- ○ Die gelbe Taste Ⓒ drücken.
- ▷ Die Angabe **AUS** wird unten auf dem Bildschirm angezeigt.
- ○ Die Taste (− +) zum Einschalten der Betriebsart **DEMONSTRATION** drücken.
- ▷ Die Angabe **DEMONSTRATION** wird angezeigt, die Menüs **BEDIENUNG** und **EINSTELLUNG** laufen automatisch nacheinander ab.



SONDERFUNKTIONEN
A KINDERSICHERUNG
B AUT. ABSCHALTUNG
C DEMONSTRATION
D SPEICHERN ALLER
E SPEICHERN P.
EIN / AUS

Zur Unterbrechung der Betriebsart DEMONSTRATION :

- ○ Die Taste MENU drücken.

Programmliste

Dieses Menü ermöglicht die Auflistung der Namen und Nummern der ersten 40 Programme, die Sie im Menü **EINSTELLUNG** gespeichert haben.

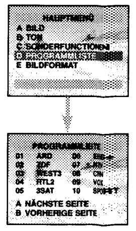
- ○ Die Taste MENU drücken.
- ▷ Das **HAUPTMENÜ** wird auf dem Bildschirm angezeigt.
- ○ Die blaue Taste Ⓓ drücken.
- ▷ Das Menü **PROGRAMMLISTE** wird auf dem Bildschirm mit der Liste der ersten 10 Programme angezeigt.

Für die Anzeige der nächsten Seite :

- ○ Die rote Taste Ⓐ drücken.

Für die Anzeige der vorherigen Seite :

- ○ Die grüne Taste Ⓑ drücken.



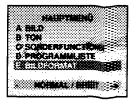
HAUPTMENÜ
A BILD
B TON
C SONDERFUNCTIONEN
D PROGRAMMLISTE
E BILDFORMAT

PROGRAMMLISTE
01 ARD 06
02 ZDF 07
03 WEST3 08 CNN
04 RTL2 09 VOX
05 3SAT 10 SPORT
A NÄCHSTE SEITE
B VORHERIGE SEITE

Bildformat

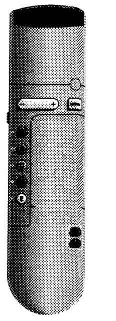
Diese Funktion ermöglicht die Anpassung des Bildformates 16/9 an Ihren Bildschirm (4/3).

- ○ Die Taste MENU drücken.
- ▷ Das **HAUPTMENÜ** wird auf dem Bildschirm angezeigt.
- ○ Die weiße Taste Ⓔ drücken.
- ▷ Die Angabe **NORMAL** wird unten auf dem Bildschirm angezeigt.
- ○ Die Taste (− +) drücken.
- ▷ Die Angabe **BREIT** wird angezeigt, und ein schwarzer Streifen erscheint oben und unten auf dem Bildschirm. Das Bild wird im Format 16/9 wiedergegeben.



HAUPTMENÜ
A BILD
B TON
C SONDERFUNCTIONEN
D PROGRAMMLISTE
E BILDFORMAT
NORMAL / BREIT

Programmierbare Tasten



Die Fernbedienung besitzt zwei blaue, programmierbare Tasten ⊖ und ⊕. Wenn Sie regelmäßig die gleiche Einstellung der Menüs aufrufen (z.B. Spatial, Lautstärke des Kopfhörers, Helligkeit, ...), können Sie einen direkten Zugang einer dieser Einstellungen programmieren.

- ○ Die Taste MENU drücken.
- ▷ Das **HAUPTMENÜ** wird auf dem Bildschirm angezeigt.

  Wählen Sie die Einstellung, die Sie programmieren möchten.
  Wenn Sie z.B. den Raumeffekt programmieren wollen :
- ○ Die grüne Taste Ⓑ zum Aufruf des Menüs **TON** drücken.
- ○ Die blaue Taste Ⓓ zur Wahl von **SPATIAL** (Raumeffekt) drücken.
- ▷ Die Angabe **AUS** oder **EIN** wird unten auf dem Bildschirm angezeigt.
- ○ Verwenden Sie für die Einstellung die blauen Tasten ⊖ und ⊕ anstatt der Taste (− +).
- ▷ Der Ton wird geändert, und die Tasten ⊖ und ⊕ werden automatisch programmiert.
- ○ Drücken Sie zweimal die Taste MENU, um das Menü zu verlassen.

Zur Funktionskontrolle :

- ○ Die blauen Tasten ⊖ und ⊕ drücken.
- ▷ Bei jeder Betätigung wird der Raumeffekt ein- oder abgeschaltet. Jetzt können Sie den Raumeffekt direkt mit diesen beiden Tasten einstellen, ohne die Menüs aufzurufen.
  Diesen Vorgang für die Einstellung Ihrer Wahl wiederholen.

10. Spare parts list / Stükliste / Liste des pièces

Main carrier [A/B/C/D]

Various

▲	4822 265 30389	2P male vert yellow
	4822 264 40207	3P male vert WTB
	4822 267 40666	3P male vert blue
	4822 264 40239	3P male vert green
▲	4822 265 30877	3P male vert
	4822 267 40696	3P male vert white
	4822 267 41113	3P female hor white
	4822 267 31694	3P female hor blue
	4822 267 40794	3P female vert grey WTB
	4822 267 40699	4P male vert red
	4822 265 30378	4P male vert WTB
	4822 290 40283	5P male vert green
	4822 265 40421	6P male vert WTB
	4822 267 30546	6P female vert grey
	4822 267 50621	7P male vert white
▲	4822 267 60243	Euroconnector (scart) blue
▲	4822 256 92053	Fuse holder
	4822 256 91879	Holder
▲	4822 502 13712	Screw 12x3
	4822 492 70871	Spring
	4822 492 70143	Spring 10x33
	4822 466 30395	Shield microprocessor
1000	4822 210 10436	U944C/IEC
1000	4822 210 10611	UV916M
1240▲	4822 252 51174	Fuse 1.6A 65V
1242▲	4822 252 51174	Fuse 1.6A 65V
1300	4822 242 81807	8.867570 MHz
1301	4822 242 70304	8.867238 MHz
1534▲	4822 252 51172	Fuse 3.15A 65V
1559▲	4822 252 51173	Fuse 1A 65V
1563	4822 526 10405	Bead
1564	4822 526 10405	Bead
1580▲	4822 252 51174	Fuse 1.6A 65V
1600▲	4822 070 32502	Fuse 2.5A 65V
1601▲	4822 252 51175	Fuse 2.5A 65V
1640	4822 526 10405	Bead
1641	4822 526 10405	Bead
1642	4822 526 10405	Bead
1643	4822 526 10405	Bead
1702	4822 242 81841	8MHz

⊣⊢

2001	4822 124 40214	1000μF 20% 25V
2002	4822 122 31797	22nF 10% 63V
2003	4822 122 33496	100nF 10% 63V
2005▲	4822 124 40196	220μF 20% 16V
2010	4822 124 40248	10μF 20% 63V
2012	4822 122 31768	180pF 2% 63V
2231▲	4822 124 41525	100μF 20% 25V
2232	4822 122 31797	22nF 10% 63V
2236	4822 122 31644	2.2nF 10% 63V
2236	4822 122 31784	4.7nF 10% 50V
2237	4822 122 31947	100nF 20% 63V
2238	4822 122 32153	1.8nF 10% 63V
2238	4822 122 33498	2.7nF 10% 63V
2239	4822 122 31947	100nF 20% 63V
2240	4822 124 40214	1000μF 20% 25V
2241	5322 121 42386	100nF 5% 63V
2242	4822 124 40214	1000μF 20% 25V
2243	4822 121 41856	22nF 5% 250V
2245	4822 121 41856	22nF 5% 250V
2246	4822 124 41596	22μF 20% 50V
2248	4822 124 40849	330μF 20% 16V
2249	4822 122 31797	22nF 10% 63V
2252	4822 121 41857	10nF 5% 250V
2253	4822 121 41857	10nF 5% 250V
2254	4822 121 51252	470nF 5% 63V
2255	4822 121 51252	470nF 5% 63V
2256	4822 122 32142	270pF 2% 63V
2257	4822 122 32142	270pF 2% 63V
2258	4822 121 51252	470nF 5% 63V
2259	4822 121 51252	470nF 5% 63V
2260	4822 122 31116	2.2nF 10% 500V
2261	4822 122 31116	2.2nF 10% 500V
2300	4822 122 32482	22pF 2% 63V
2301	4822 122 32999	2.2nF 5%
2303	4822 122 31768	180pF 2% 63V
2304	4822 122 31773	560pF 2% 63V
2304	4822 122 32999	2.2nF 5%
2305	4822 126 10324	33pF 2% 63V
2306	4822 122 31965	220pF 2% 63V
2307	4822 122 33496	100nF 10% 63V
2308	4822 122 31797	22nF 10% 63V
2310	4822 121 41857	10nF 5% 250V
2310	4822 121 42408	220nF 5% 63V
2311	4822 122 33496	100nF 10% 63V
2312	4822 121 41857	10nF 5% 250V
2312	4822 121 42408	220nF 5% 63V
2313	4822 125 50045	1p8-22p 250V
2314	5322 121 42661	330nF 5% 63V
2314	5322 122 32818	2.2nF 10% 100V
2315	4822 122 31825	27pF 2% 63V
2316	4822 122 33496	100nF 10% 63V
2319▲	4822 122 32442	10nF 50V
2321	4822 122 31797	22nF 10% 63V
2322	4822 122 31797	22nF 10% 63V
2323	4822 122 32542	47nF 10% 63V
2325	4822 122 31965	220pF 2% 63V
2325	4822 122 32542	47nF 10% 63V
2326	4822 122 31839	82pF 2% 63V
2328▲	4822 122 32442	10nF 50V
2329▲	4822 122 32442	10nF 50V
2330	4822 122 33496	100nF 10% 63V
2331	4822 122 33496	100nF 10% 63V
2332	4822 122 33496	100nF 10% 63V
2333	4822 122 33496	100nF 10% 63V
2334	4822 122 33496	100nF 10% 63V
2336	4822 122 31797	22nF 10% 63V
2337	4822 122 31797	22nF 10% 63V
2338	4822 122 31797	22nF 10% 63V
2339	4822 122 33496	100nF 10% 63V
2340	4822 122 31797	22nF 10% 63V
2341	4822 122 31797	22nF 10% 63V
2342	4822 122 33496	100nF 10% 63V
2343	4822 122 33496	100nF 10% 63V
2344	4822 122 33496	100nF 10% 63V
2345	4822 122 31797	22nF 10% 63V
2348▲	4822 124 40196	220μF 20% 16V
2349	5322 122 31647	1nF 10% 63V
2350▲	4822 124 40433	47μF 20% 25V
2351	4822 122 31797	22nF 10% 63V
2352	5322 122 31647	1nF 10% 63V
2353	4822 122 33496	100nF 10% 63V
2354	4822 124 40242	1μF 20% 63V
2355	4822 124 40849	330μF 20% 16V
2356	4822 122 31797	22nF 10% 63V
2357	4822 122 31797	22nF 10% 63V
2358	4822 122 31797	22nF 10% 63V
2359	4822 122 31765	100pF 2% 63V
2360	4822 122 33496	100nF 10% 63V
2361	4822 122 33496	100nF 10% 63V
2362	4822 122 33496	100nF 10% 63V
2363	4822 122 31765	100pF 2% 63V
2365	5322 121 42661	330nF 5% 63V
2366	4822 124 40248	10μF 20% 63V
2367	4822 124 40753	6.8μF 20% 63V
2368	4822 126 13094	11pF 2% 63V
2369	4822 121 51252	470nF 5% 63V
2370	4822 121 42408	220nF 5% 63V
2374	4822 122 31772	47pF 2% 63V
2378	4822 122 33496	100nF 10% 63V
2385	4822 122 31772	47pF 2% 63V
2386	4822 122 33481	1800pF 2% 63V
2451	4822 122 33496	100nF 10% 63V
2453	5322 124 41431	22μF 20% 35V
2455	5322 122 31647	1nF 10% 63V
2456	4822 124 40242	1μF 20% 63V
2457	4822 122 33496	100nF 10% 63V
2458	4822 121 42937	2.7nF 1% 250V
2459	4822 122 33496	100nF 10% 63V
2460	4822 122 32566	3.9nF 10% 63V
2460	4822 122 33498	2.7nF 10% 63V
2461	5322 122 31647	1nF 10% 63V
2462	4822 122 31797	22nF 10% 63V
2464	4822 122 33496	100nF 10% 63V
2465	4822 124 40198	470μF 20% 16V
2466	4822 124 40248	10μF 20% 63V
2467	4822 122 33496	100nF 10% 63V
2468	4822 124 22652	2.2μF 20% 50V
2469	4822 124 41596	22μF 20% 50V
2470	4822 122 31772	47pF 2% 63V
2471	5322 121 42661	330nF 5% 63V
2473	5322 121 42661	330nF 5% 63V
2475	5322 122 31647	1nF 10% 63V
2476▲	4822 122 32442	10nF 50V
2500	4822 122 31773	560pF 2% 63V
2501	4822 122 33481	1800pF 2% 63V
2502	5322 124 41381	22μF 20% 50V
2503▲	4822 122 32442	10nF 50V
2505	4822 122 32542	47nF 10% 63V
2506	4822 124 80065	1000μF 20% 50V
2507	4822 122 31797	22nF 10% 63V
2509	4822 121 51319	1μF 10% 63V
2524	4822 124 42167	4.7μF 20% 50V
2539	4822 124 40198	470μF 20% 16V
2543	4822 122 31784	4.7nF 10% 50V
2544	4822 122 32183	56nF 10% 50V
2545▲	4822 126 12273	1200pF 10%R(HR) 2KV
2545▲	4822 126 12274	1500pF 10%R(HR) 2KV
2546▲	4822 121 70434	11nF 5% 1.6KV
2546▲	4822 121 70538	13nF 5% 1.6KV
2547▲	4822 121 42934	27nF 10% 400V
2547▲	5322 121 44219	47nF 10% 400V
2548	4822 121 41856	22nF 5% 250V
2549▲	4822 121 42074	470 nF 10% 400V
2550▲	4822 121 51528	470nF 5% 250V
2550▲	5322 121 44128	680nF 10% 250V
2551	4822 124 80069	1μF 20% 160V
2552	4822 122 33496	100nF 10% 63V
2559	4822 124 80059	100μF 20% 25V
2560▲	4822 121 51408	33nF 10% 250V
2561	4822 122 31766	120pF 2% 63V
2570	4822 124 80071	22μF 20% 160V
2574	4822 122 30057	2.7nF 10% 100V
2580	4822 124 80061	1000μF 20% 25V
2588	4822 051 10008	0R00 5% 0.25W
2590	5322 121 42498	680nF 5% 63V
2600▲	4822 121 70285	470nF 10% 250V
2605	4822 124 23492	220μF 50% 385V
2605▲	4822 124 80728	150μF 20% 385V
2607▲	4822 121 51469	1nF 400V
2608	4822 122 31965	220pF 2% 63V
2612	5322 122 31647	1nF 10% 63V
2617	4822 121 51252	470nF 5% 63V
2617	4822 121 51319	1μF 10% 63V
2620	5322 121 42465	68nF 5% 63V
2625▲	4822 126 12272	1nF 10%R(HR) 2KV
2626▲	4822 126 12267	470pF 10%R(HR) 2KV
2630	4822 124 23418	47μF 200V
2630	4822 124 42448	100μF 20% 200V
2631	4822 124 23418	47μF 200V
2631	4822 124 42448	100μF 20% 200V
2632▲	4822 126 11382	1nF 10% 1KV
2640	4822 124 80061	1000μF 20% 25V
2641	4822 124 80061	1000μF 20% 25V
2652	5322 122 32331	1nF 10% 100V
2653	5322 122 32331	1nF 10% 100V
2658	5322 122 32838	82nF 10% 63V
2660	4822 124 80061	1000μF 20% 25V
2672	5322 124 41379	2.2μF 20% 50V
2675	4822 124 80064	680μF 20% 50V
2675	4822 124 80065	1000μF 20% 50V
2676	5322 122 32331	1nF 10% 100V
2700	4822 124 40248	10μF 20% 63V
2704	4822 122 32542	47nF 10% 63V
2705	4822 122 31766	120pF 2% 63V
2706	4822 124 41643	100μF 20% 16V
2707▲	4822 122 32442	10nF 50V
2708	4822 122 31766	120pF 2% 63V
2709	4822 122 32139	12pF 2% 63V
2710	4822 122 32139	12pF 2% 63V
2711	4822 122 31825	27pF 2% 63V
2712	4822 122 31825	27pF 2% 63V
2713▲	4822 124 41525	100μF 20% 25V
2716	4822 122 33496	100nF 10% 63V
2718	4822 122 33496	100nF 10% 63V
2719	5322 121 42386	100nF 5% 63V
2721	4822 122 31784	4.7nF 10% 50V
2722	4822 122 33496	100nF 10% 63V
2853	4822 121 43856	4.7nF 5% 250V
2854	4822 122 33496	100nF 10% 63V
2860	4822 124 40248	10μF 20% 63V

-▭-

3001▲	4822 052 10399	39Ω 5% 0.33W
3002	4822 116 52257	22k 5% 0.5W
3003	4822 116 52296	6k8 5% 0.5W
3009	4822 116 52175	100Ω 5% 0.5W
3010	4822 116 52175	100Ω 5% 0.5W
3200	4822 051 10223	22k 2% 0.25W
3201	4822 051 10562	5k6 2% 0.25W
3202	4822 051 10122	1k2 2% 0.25W
3203▲	4822 116 52233	10k 5% 0.5W
3204	4822 051 10101	100Ω 2% 0.25W
3205	4822 051 10223	22k 2% 0.25W
3206	4822 051 10562	5k6 2% 0.25W
3207	4822 116 52207	1k2 5% 0.5W
3208	4822 116 52228	680Ω 5% 0.5W
3208▲	4822 116 52263	2k7 5% 0.5W
3209	4822 116 52228	680Ω 5% 0.5W
3209▲	4822 116 52263	2k7 5% 0.5W
3220	4822 051 10392	3k9 2% 0.25W
3222	4822 116 52234	100Ω 5% 0.5W
3223	4822 051 10109	10Ω 2% 0.25W
3224	4822 051 20222	2k2 5% 0.1W
3225	4822 051 10272	2k7 2% 0.25W
3226	4822 051 10333	33k 2% 0.25W
3227	4822 051 10333	33k 2% 0.25W
3228	4822 116 52211	150Ω 5% 0.5W
3229	4822 051 10562	5k6 2% 0.25W
3230	4822 051 10223	22k 2% 0.25W
3231▲	4822 051 10472	4k7 2% 0.25W
3240▲	4822 052 10828	8Ω2 5% 0.33W
3241▲	4822 052 10828	8Ω2 5% 0.33W
3242	4822 051 10563	56k 2% 0.25W
3243	4822 051 10563	56k 2% 0.25W
3244▲	4822 051 10103	10k 2% 0.25W
3245▲	4822 051 10103	10k 2% 0.25W
3250	4822 116 80175	4k7 5% 0.5W
3251	4822 116 80175	4k7 5% 0.5W
3253	4822 116 52211	150Ω 5% 0.5W
3254	4822 116 52211	150Ω 5% 0.5W
3300	4822 051 10822	8k2 2% 0.25W
3301	4822 051 10272	2k7 2% 0.25W
3302	4822 051 20222	2k2 5% 0.1W
3303	4822 051 10122	1k2 2% 0.25W
3303	4822 051 10392	3k9 2% 0.25W
3304	4822 051 10182	1k8 2% 0.25W
3305	4822 051 10431	430Ω 2% 0.25W
3306▲	4822 116 52233	10k 5% 0.5W
3307	4822 051 10561	560Ω 2% 0.25W
3307	4822 051 10681	680Ω 2% 0.25W
3308	4822 051 20183	18k 5% 0.1W
3309	4822 051 10562	5k6 2% 0.25W
3310▲	4822 051 10472	4k7 2% 0.25W
3311▲	4822 051 10103	10k 2% 0.25W
3312	4822 051 10331	330Ω 2% 0.25W
3313	4822 051 10274	270k 2% 0.25W
3314▲	4822 116 52233	10k 5% 0.5W
3318	4822 116 52224	470Ω 5% 0.5W
3319▲	4822 051 10103	10k 2% 0.25W
3321	4822 051 10473	47k 2% 0.25W
3323	4822 116 52305	820k 5% 0.5W
3324	4822 051 10331	330Ω 2% 0.25W
3325	4822 116 52175	100Ω 5% 0.5W
3326	4822 051 10101	100Ω 2% 0.25W
3327	4822 051 10331	330Ω 2% 0.25W
3328	4822 051 10102	1k 2% 0.25W
3329▲	4822 116 52256	2k2 5% 0.5W
3330	4822 051 10109	10Ω 2% 0.25W
3331	4822 051 10109	10Ω 2% 0.25W
3332	4822 050 15609	56Ω 1% 0.4W
3333	4822 051 20222	2k2 5% 0.1W
3334▲	4822 053 11279	27Ω 5% 2W
3334	4822 053 11399	39Ω 5% 2W
3335	4822 116 52226	560Ω 5% 0.5W
3336▲	4822 052 10479	47Ω 5% 0.33W
3342▲	4822 051 10103	10k 2% 0.25W
3343	4822 051 10473	47k 2% 0.25W
3346	4822 051 10332	3k3 2% 0.25W
3347▲	4822 116 52219	330Ω 5% 0.5W
3348▲	4822 116 52219	330Ω 5% 0.5W
3349▲	4822 116 52219	330Ω 5% 0.5W
3350	4822 050 11002	1k 1% 0.4W
3356▲	4822 050 21008	1Ω 1% 0.6W
3358	4822 051 10331	330Ω 2% 0.25W
3359▲	4822 116 52219	330Ω 5% 0.5W
3361	4822 051 10101	100Ω 2% 0.25W
3362	4822 051 10102	1k 2% 0.25W
3363	4822 116 52175	100Ω 5% 0.5W
3364	4822 050 21502	1k5 1% 0.6W
3366	4822 116 52297	68k 5% 0.5W
3367	4822 116 52175	100Ω 5% 0.5W
3368	4822 116 52175	100Ω 5% 0.5W
3369	4822 116 52175	100Ω 5% 0.5W
3370▲	4822 051 10472	4k7 2% 0.25W
3371	4822 051 10332	3k3 2% 0.25W
3375	4822 051 10109	10Ω 2% 0.25W
3376	4822 051 10109	10Ω 2% 0.25W
3380	4822 051 10101	100Ω 2% 0.25W
3381	4822 051 10101	100Ω 2% 0.25W
3385	4822 051 10102	1k 2% 0.25W
3450	4822 116 52238	12k 5% 0.5W
3451	4822 116 52175	100Ω 5% 0.5W
3453	4822 116 52251	18k 5% 0.5W
3454	4822 050 11002	1k 1% 0.4W
3455	4822 051 10122	1k2 2% 0.25W
3456▲	4822 051 10103	10k 2% 0.25W
3457	4822 116 83726	27k 5% 0.125W
3458	4822 117 11455	7k87 1%
3459	4822 116 52304	82k 5% 0.5W
3460	4822 116 52271	33k 5% 0.5W
3461	4822 100 10436	22k CARB LIN 0.1W
3462	4822 116 52257	22k 5% 0.5W
3463	4822 116 52251	18k 5% 0.5W
3464	4822 051 10123	12k 2% 0.25W

BTB = Board To Board; WTB = Wire To Board

3465	4822 051 10394	390k 2% 0.25W
3466	4822 051 10681	680Ω 2% 0.25W
3467	4822 053 20275	2M7 5% 0.25W
3467	4822 053 20335	3M3 5% 0.25W
3468	4822 051 10682	6k8 2% 0.25W
3469	4822 051 10229	22Ω 2% 0.25W
3470▲	4822 116 52233	10k 5% 0.5W
3471	4822 116 52239	120k 5% 0.5W
3471	4822 116 52285	470k 5% 0.5W
3473	4822 116 52265	270k 5% 0.5W
3474	4822 051 10562	5k6 2% 0.25W
3475	4822 051 10184	180k 2% 0.25W
3476	4822 051 10104	100k 2% 0.25W
3477	4822 051 10008	0Ω 5% 0.25W
3477	4822 051 10228	2Ω2 5% 0.25W
3478	4822 051 10008	0Ω 5% 0.25W
3478	4822 051 10478	4Ω7 5% 0.25W
3479▲	4822 116 52219	330Ω 5% 0.5W
3480	4822 050 11002	1k 1% 0.4W
3481▲	4822 116 52283	4k7 5% 0.5W
3482▲	4822 116 52283	4k7 5% 0.5W
3483▲	4822 052 10339	33Ω 5% 0.33W
3484	4822 051 20183	18k 5% 0.1W
3485	4822 051 10682	6k8 2% 0.25W
3486	4822 051 10182	1k8 2% 0.25W
3487	4822 116 52231	820Ω 5% 0.5W
3488	4822 051 10471	470Ω 2% 0.25W
3489	4822 051 10008	0Ω 5% 0.25W
3490	4822 116 52296	6k8 5% 0.5W
3501	4822 051 10229	22Ω 2% 0.25W
3501	4822 051 10279	27Ω 2% 0.25W
3502▲	4822 053 10122	1k2 5% 1W
3502▲	4822 053 10272	2k7 5% 1W
3503▲	4822 052 10128	1Ω2 5% 0.33W
3503▲	4822 052 10478	4Ω7 5% 0.33W
3504	4822 100 11684	100Ω 10% 0.1W
3505	4822 051 10471	470Ω 2% 0.25W
3506	4822 051 10334	330k 2% 0.25W
3507	4822 051 10223	22k 2% 0.25W
3507	4822 051 10273	27k 2% 0.25W
3508	4822 051 10228	2Ω2 5% 0.25W
3509	4822 051 10228	2Ω2 5% 0.25W
3510	4822 051 10228	2Ω2 5% 0.25W
3511	4822 051 10228	2Ω2 5% 0.25W
3512	4822 051 10228	2Ω2 5% 0.25W
3513▲	4822 053 10331	330Ω 5% 1W
3514	4822 051 10182	1k8 2% 0.25W
3515	4822 051 10228	2Ω2 5% 0.25W
3516	4822 100 10436	22k CARB LIN 0.1W
3517	4822 051 10228	2Ω2 5% 0.25W
3519	4822 051 10228	2Ω2 5% 0.25W
3520▲	4822 116 52283	4k7 5% 0.5W
3523	4822 051 10228	2Ω2 5% 0.25W
3529	4822 051 10228	2Ω2 5% 0.25W
3535	4822 051 10151	150Ω 2% 0.25W
3535	4822 051 51201	120Ω 1% 0.125W
3537	4822 116 52234	100Ω 5% 0.5W
3539	4822 053 20474	470k 5% 0.25W
3540	4822 051 51201	120Ω 1% 0.125W
3541	4822 116 52257	22k 5% 0.5W
3542	4822 051 10102	1k 2% 0.25W
3542	4822 051 10272	2k7 2% 0.25W
3543	4822 116 52175	100Ω 5% 0.5W
3545	4822 113 80576	180Ω 10% 5W
3545	4822 113 80668	330Ω 5% 5W
3546	4822 116 52206	120Ω 5% 0.5W
3546	4822 116 52213	180Ω 5% 0.5W
3548	4822 116 52175	100Ω 5% 0.5W
3549	4822 050 21203	12k 1% 0.6W
3550	4822 050 21203	12k 1% 0.6W
3551▲	4822 050 25601	560Ω 1% 0.6W
3552▲	4822 050 25601	560Ω 1% 0.6W
3553▲	4822 052 10561	560Ω 5% 0.33W
3560	4822 116 52244	15k 5% 0.5W
3560	4822 116 52271	33k 5% 0.5W
3561	4822 051 10332	3k3 2% 0.25W
3561	4822 051 20222	2k2 5% 0.1W
3570▲	4822 052 10688	6Ω8 5% 0.33W
3588▲	4822 052 10271	270Ω 5% 0.33W
3589▲	4822 052 10271	270Ω 5% 0.33W
3590▲	4822 116 52272	330k 5% 0.5W
3591	4822 051 10682	6k8 2% 0.25W
3592	4822 051 10681	680Ω 2% 0.25W
3604▲	4822 113 80593	1.5Ω 10% 5W
3606▲	4822 052 10102	1k 5% 0.33W
3610▲	4822 052 10688	6Ω8 5% 0.33W
3610▲	4822 052 10828	8Ω2 5% 0.33W
3616▲	4822 050 24708	4Ω7 1% 0.6W
3617	4822 116 52213	180Ω 5% 0.5W
3619	4822 116 52182	15Ω 5% 0.5W
3620	4822 053 12121	120Ω 5% 3W
3621▲	4822 053 12279	27Ω 5% 3W
3621	4822 053 12479	47Ω 5% 3W
3622	4822 053 12479	47Ω 5% 3W

3626	4822 113 80565	180Ω 5% 5W
3631	4822 050 21204	120k 1% 0.6W
3631	4822 050 22204	220k 1% 0.6W
3634	4822 051 10272	2k7 2% 0.25W
3634	4822 051 10332	3k3 2% 0.25W
3635	4822 101 11187	1k 30% LIN 0.1W
3637	4822 116 52175	100Ω 5% 0.5W
3659	4822 051 10181	180Ω 2% 0.25W
3675	4822 116 52239	120k 5% 0.5W
3675	4822 116 52284	47k 5% 0.5W
3677	4822 051 10108	1Ω 5% 0.25W
3678▲	4822 116 52283	4k7 5% 0.5W
3682▲	4822 053 10561	560Ω 5% 1W
3700	4822 116 52257	22k 5% 0.5W
3706▲	4822 051 10103	10k 2% 0.25W
3707	4822 051 10101	100Ω 2% 0.25W
3708▲	4822 051 10103	10k 2% 0.25W
3708	4822 051 10223	22k 2% 0.25W
3709▲	4822 116 52283	4k7 5% 0.5W
3710	4822 051 10104	100k 2% 0.25W
3718▲	4822 116 52215	220Ω 5% 0.5W
3719▲	4822 116 52215	220Ω 5% 0.5W
3721▲	4822 051 10103	10k 2% 0.25W
3722▲	4822 051 10103	10k 2% 0.25W
3724▲	4822 051 10103	10k 2% 0.25W
3725▲	4822 051 10103	10k 2% 0.25W
3727▲	4822 116 52217	270Ω 5% 0.5W
3728	4822 116 52175	100Ω 5% 0.5W
3729	4822 051 10911	910Ω 2% 0.25W
3730	4822 051 10221	220Ω 2% 0.25W
3732	4822 053 11103	10k 5% 2W
3732	4822 053 11332	3k3 5% 2W
3733	4822 050 23902	3k9 1% 0.6W
3734	4822 050 23902	3k9 1% 0.6W
3734▲	4822 116 52283	4k7 5% 0.5W
3736	4822 116 52175	100Ω 5% 0.5W
3737	4822 050 11002	1k 1% 0.4W
3741	4822 051 10123	12k 2% 0.25W
3742	4822 051 20222	2k2 5% 0.1W
3743▲	4822 051 10472	4k7 2% 0.25W
3746	4822 051 10123	12k 2% 0.25W
3747	4822 051 10822	8k2 2% 0.25W
3748	4822 051 10273	27k 2% 0.25W
3750▲	4822 051 10472	4k7 2% 0.25W
3751	4822 051 10153	15k 2% 0.25W
3752	4822 116 52244	15k 5% 0.5W
3753▲	4822 116 52283	4k7 5% 0.5W
3754	4822 051 10563	56k 2% 0.25W
3755	4822 051 10101	100Ω 2% 0.25W
3756	4822 051 10101	100Ω 2% 0.25W
3757	4822 051 10182	1k8 2% 0.25W
3758	4822 051 10182	1k8 2% 0.25W
3759▲	4822 051 10103	10k 2% 0.25W
3766	4822 116 52243	1k5 5% 0.5W
3767	4822 116 52243	1k5 5% 0.5W
3768	4822 051 10105	1M 5% 0.25W
3769	4822 116 52243	1k5 5% 0.5W
3770	4822 051 10473	47k 2% 0.25W
3771	4822 116 52251	18k 5% 0.5W
3772	4822 116 52276	3k9 5% 0.5W
3775	4822 051 10101	100Ω 2% 0.25W
3776	4822 051 10562	5k6 2% 0.25W
3779▲	4822 116 52233	10k 5% 0.5W
3780▲	4822 051 10103	10k 2% 0.25W
3781▲	4822 051 10472	4k7 2% 0.25W
3791	4822 051 10122	1k2 2% 0.25W
3792	4822 051 10122	1k2 2% 0.25W
3793	4822 051 10122	1k2 2% 0.25W
3794▲	4822 116 52215	220Ω 5% 0.5W
3850	4822 116 52201	75Ω 5% 0.5W
3851▲	4822 116 83953	75Ω 5% 0.125W
3852▲	4822 116 83953	75Ω 5% 0.125W
3853▲	4822 116 83953	75Ω 5% 0.125W
3854▲	4822 116 83953	75Ω 5% 0.125W
3855	4822 116 52201	75Ω 5% 0.5W
3856	4822 116 52175	100Ω 5% 0.5W
3860	4822 116 80176	1Ω 5% 0.5W
3861	4822 051 10159	15Ω 2% 0.25W
3862	4822 116 52218	300Ω 5% 0.5W
3863	4822 051 10223	22k 2% 0.25W
3864	4822 051 20222	2k2 5% 0.1W
3865	4822 116 52284	47k 5% 0.5W
3866	4822 051 10333	33k 2% 0.25W
3867▲	4822 116 52283	4k7 5% 0.5W
3868	4822 051 10394	390k 2% 0.25W
3872	4822 051 10102	1k 2% 0.25W
3886▲	4822 051 10472	4k7 2% 0.25W
3887	4822 050 11002	1k 1% 0.4W
3888	4822 116 52289	5k6 5% 0.5W
3890▲	4822 051 10103	10k 2% 0.25W
4xxx	4822 051 10008	0Ω 5% 0.25W

5001	4822 156 20966	47μH 10%
5240	4822 157 53066	15μH 10%
5242	4822 157 53066	15μH 10%
5301	4822 157 63075	7.95 μH 8%
5303	4822 157 70827	33μH -5%
5534▲	4822 157 62771	Coil 90°
5534▲	4822 158 10728	Coil 110°
5541▲	4822 157 63078	Driver transformer
5545▲	4822 140 10499	LOT-21"-90°
5545▲	4822 140 10501	LOT 25"/28" BLS
5549▲	4822 157 53069	Balance coil
5554▲	4822 156 50097	Linearity coil LC90
5554▲	4822 157 63079	Linearity coil AT4042
5563▲	4822 157 51462	10μH
5582	4822 157 70826	2.4μH
5588▲	4822 157 53252	Coil
5606▲	4822 157 53995	100μH 10%
5619	4822 156 21125	3.9μH 10%
5619	4822 157 53139	4.7μH
5625▲	4822 146 31062	SOPS transformer
5630	4822 157 70826	2.4μH
5631	4822 158 10551	27μH
5632	4822 157 53066	15μH 10%
5675	4822 157 70826	2.4μH
5701	4822 157 53253	27μH 5%
5703	4822 156 20915	33μH

6204▲	4822 130 30621	1N4148
6245	4822 130 80446	LL4148
6246	4822 130 81139	LLZ-C3V3
6247	4822 130 81139	LLZ-C3V3
6248	4822 130 80446	LL4148
6300	4822 130 80446	LL4148
6302	4822 130 82192	LLZ-C8V2
6303	4822 130 34382	BZX79-C8V2
6310	4822 130 80884	LLZ-C5V1
6314	4822 130 80446	LL4148
6315▲	4822 130 30621	1N4148
6317	4822 130 80446	LL4148
6319	4822 130 34379	BZX79-C27
6320	4822 130 80877	BAV103
6322▲	4822 130 30621	1N4148
6332	4822 130 82583	LLZ-C9V1
6367	4822 130 80954	LLZ-C5V6
6464	4822 130 81015	LLZ-C10
6483▲	4822 130 30621	1N4148
6503	4822 130 42488	BYD33D
6504	4822 130 80446	LL4148
6505	4822 130 80446	LL4148
6542	4822 130 81222	LLZ-C15
6542	4822 130 82345	LLZ-C22
6546▲	4822 130 83342	BY228
6547▲	4822 130 41602	BYW95C/20
6549▲	4822 130 31983	BAT85
6551	4822 130 42489	BYD33G
6560	4822 130 80446	LL4148
6561	4822 130 30864	BZX79-C68
6563▲	4822 130 80915	BYD74C
6570	4822 130 42489	BYD33G
6571	4822 130 42488	BYD33D
6580	4822 130 80791	BYV28-200/20
6585	4822 130 42489	BYD33G
6590	4822 130 80881	LLZ-C33
6591▲	4822 130 30621	1N4148
6592	4822 130 81144	LLZ-C30
6592	4822 130 82346	LLZ-C27
6610	4822 130 80446	LL4148
6611▲	5322 130 80442	BZV85-C16
6612	4822 130 42488	BYD33D
6615	4822 130 80446	LL4148
6617	4822 130 31456	BZV85-C5V1
6621	4822 130 42488	BYD33D
6622▲	4822 130 30621	1N4148
6624▲	4822 130 31933	1N5061
6625▲	4822 130 31933	1N5061
6630▲	4822 130 33531	BY229F-600
6630▲	4822 130 81175	BYD74G
6640	4822 130 80914	BYD74B
6641	4822 130 80914	BYD74B
6661	4822 130 42488	BYD33D
6666	4822 130 34329	BZX79-C43
6666	4822 130 34368	BZX79-C36
6675	4822 130 80914	BYD74B
6704	4822 130 80446	LL4148
6705	4822 130 80905	LLZ-F5V1
6708	4822 130 81145	LLZ-F2V4
6709	4822 130 34142	BZX79-B33
6860	4822 130 82334	BAS85
6861▲	4822 130 30621	1N4148
6862	4822 130 80446	LL4148

7003	4822 130 42133	BC817
7200	5322 130 42136	BC848C
7201	5322 130 42136	BC848C
7202	5322 130 42136	BC848C
7240	4822 209 73853	TDA1521/N4
7243	4822 130 42513	BC858C
7244	4822 130 42513	BC858C
7248	5322 130 42136	BC848C
7249	5322 130 42136	BC848C
7301	5322 130 42136	BC848C
7302	4822 130 42513	BC858C
7303	4822 130 40855	BC337
7304	5322 130 42718	BFS20
7305	4822 209 30389	TDA4510/V8
7306	4822 209 33671	TDA4657/V2
7307	4822 209 12635	TDA4665/V3
7308	4822 209 32593	TDA4671/V1
7309	4822 209 33725	TDA4780/V2
7310	5322 130 42136	BC848C
7311	5322 130 42136	BC848C
7312	5322 130 42136	BC848C
7370	5322 130 42136	BC848C
7454	5322 130 41983	BC858B
7455	4822 130 60136	BC856
7456	5322 130 60159	BC846B
7470	4822 209 63423	TDA2579B/N2
7471	5322 130 42136	BC848C
7500▲	4822 130 41344	BC337-40
7502	4822 130 60775	2SD1266P
7503	4822 130 63508	BD536FI
7504▲	4822 130 41344	BC337-40
7505	4822 130 41327	BC327-40
7540▲	4822 130 41344	BC337-40
7545▲	4822 130 61265	BU508AF
7546▲	5322 130 41982	BC848B
7591	5322 130 41983	BC858B
7625▲	4822 130 62735	BUT12AF
7700▲	5322 130 41982	BC848B
7703▲	5322 130 41982	BC848B
7704▲	5322 130 41982	BC848B
7706▲	5322 130 41982	BC848B
7707▲	5322 130 41982	BC848B
7708	4822 209 52642	VERSION-1.2 EUROPA
7708	4822 209 52643	VERSION-1.2-EAST
7710	4822 209 32283	ST24C08B
7850	5322 130 42136	BC848C
7860	5322 130 42136	BC848C
7861	5322 130 42136	BC848C
7886	5322 130 42136	BC848C

1060 Seperate control module [A/B]

Various

	4822 267 40696	3P male vert white
	4822 265 31135	5P male vert black
	4822 267 50621	7P male vert white
	4822 256 92101	Bracket sep control module
	4822 267 31014	Jackplug stereo
	4822 276 30422	Switch 3-fold
1060	4822 212 31627	Seperate control module

2200	4822 122 31211	100pF 10% 500V
2203	4822 122 31211	100pF 10% 500V
2233	4822 121 41856	22nF 5% 250V
2234	4822 121 41856	22nF 5% 250V
2240	5322 122 32175	270pF 10% 100V

3200▲	4822 050 21002	1k 1% 0.6W
3202▲	4822 050 21002	1k 1% 0.6W
3246	4822 116 52176	10Ω 5% 0.5W
3247	4822 116 52224	470Ω 5% 0.5W
3248	4822 116 52176	10Ω 5% 0.5W
3249	4822 116 52224	470Ω 5% 0.5W
3775	4822 116 52175	100Ω 5% 0.5W
3776	4822 116 52289	5k6 5% 0.5W
3779▲	4822 116 52233	10k 5% 0.5W
3851	4822 116 80176	1Ω 5% 0.5W

BTB = Board To Board; WTB = Wire To Board

Spare parts list / Stükliste / Liste des pièces

▶|

6200	4822 130 31981	BZX79-F3V9
6201	4822 130 31981	BZX79-F3V9
6202	4822 130 31981	BZX79-F3V9
6203	4822 130 31981	BZX79-F3V9

1002 Mains filter module [D]

Various

	4822 265 30389	2P male vert yellow
	4822 265 30877	3P male vertB
	4822 267 40794	3P female vert grey WTB
	4822 290 40288	Snap connector
	4822 404 31317	Mains filter module bracket
1002	4822 212 30975	Mains filter module

||

2602	4822 126 11141	2.2nF 10% 1K
2604	4822 126 11141	2.2nF 10% 1K

▭

3601	4822 116 40211	P.T.C.
3603	4822 117 10492	10M 5%
3605	4822 052 10102	1k 5% 0.33
3607	4822 050 23901	390Ω 1% 0.6
3608	4822 116 21213	VDR 1mA/275V

∿

5600	4822 157 63073	Mains filter
5605	4822 157 53995	100μH 10%

▶|

6602	4822 130 31933	1N5061
6603	4822 130 31933	1N5061
6604	4822 130 31933	1N5061
6605	4822 130 31933	1N5061
6609	4822 130 34281	BZX79-F15
6610	4822 130 34281	BZX79-F15

1005 Picture tube (CRT) module [E]

Various

	4822 265 31133	3P male white
	4822 265 30378	4P male grey
	4822 265 50824	4P female grey
	4822 290 40283	5P male grey
	4822 290 40287	5P female green
	4822 290 40295	7P male grey
	4822 267 51275	7P female white
	4822 265 40252	7P female grey
	4822 267 51033	Single connector
	4822 492 70871	Spring
	4822 256 91879	Holder
▲	4822 255 70261	CRT-socket
1005	4822 212 31629	CRT module 90° narrow neck
1005	4822 212 31628	CRT module 110° BL-S

||

2301	4822 122 31769	18pF 2% 63V
2301	4822 126 10324	33pF 2% 63V
2331	4822 122 31769	18pF 2% 63V
2331	4822 126 10324	33pF 2% 63V
2344▲	4822 124 40246	4.7μF 20% 63V
2361	4822 122 31825	27pF 2% 63V
2361	4822 122 32504	15pF 2% 63V
2391	4822 121 43878	27pF 2% 500V
2392	4822 124 80213	4.7μF 20% 100V
2393	4822 122 32542	47nF 10% 63V
2411▲	4822 124 80067	4.7μF 20% 63V
2421	4822 122 32482	22pF 2% 63V
2431	4822 121 41689	100nF 10% 250V
2432	5322 124 41378	33μF 20% 35V
2433▲	4822 126 12274	1500pF 10%R(HR) 2KV
2434	5322 122 32334	220pF 10% 100V
2520	5322 124 41299	68μF 20% 25V
2521	4822 122 32891	68nF 10% 63V
2522	5322 121 42661	330nF 5% 63V
2523	4822 122 31981	33nF +-0.5pF 50V
2526	4822 121 51093	6.8nF 5% 250V
2531	4822 121 42408	220nF 5% 63V
2531	4822 121 43396	120nF 5% 63V
2532	4822 124 80066	1μF 20% 63V
2532▲	4822 124 80067	4.7μF 20% 63V
2533	4822 124 40242	1μF 20% 63V
2534	5322 122 31647	1nF 10% 63V

▭

3301	4822 051 10131	130Ω 2% 0.25W
3302	4822 051 10182	1k8 2% 0.25W
3302	4822 051 10362	3k6 2% 0.25W
3303▲	4822 051 10242	2k4 2% 0.25W
3303	4822 051 10272	2k7 2% 0.25W
3304	4822 116 52239	120k 5% 0.5W
3305	4822 051 10154	150k 2% 0.25W
3305	4822 051 10823	82k 2% 0.25W
3306▲	4822 116 52219	330Ω 5% 0.5W
3309	4822 051 10108	1Ω 5% 0.25W
3309	4822 051 10479	47Ω 2% 0.25W
3310▲	4822 116 52219	330Ω 5% 0.5W
3311▲	4822 053 12153	15k 5% 3W
3312▲	4822 052 10271	270Ω 5% 0.33W
3313▲	4822 052 10271	270Ω 5% 0.33W
3314	4822 050 21502	1k5 1% 0.6W
3315	4822 051 10184	180k 2% 0.25W
3315	4822 051 10823	82k 2% 0.25W
3316	4822 051 10224	220k 2% 0.25W
3316	4822 051 10823	82k 2% 0.25W
3331	4822 051 10131	130Ω 2% 0.25W
3332	4822 051 10182	1k8 2% 0.25W
3332	4822 051 10362	3k6 2% 0.25W
3333	4822 116 52259	2k4 5% 0.5W
3333▲	4822 116 52263	2k7 5% 0.5W
3334	4822 116 52239	120k 5% 0.5W
3338	4822 051 10108	1Ω 5% 0.25W
3338	4822 051 10479	47Ω 2% 0.25W
3340▲	4822 116 52219	330Ω 5% 0.5W
3341▲	4822 053 12153	15k 5% 3W
3342▲	4822 052 10271	270Ω 5% 0.33W
3343▲	4822 052 10271	270Ω 5% 0.33W
3344	4822 050 21502	1k5 1% 0.6W
3345	4822 051 10681	680Ω 2% 0.25W
3361	4822 116 52208	130Ω 5% 0.5W
3362	4822 051 10182	1k8 2% 0.25W
3362	4822 051 10362	3k6 2% 0.25W
3364▲	4822 051 10472	4k7 2% 0.25W
3368	4822 051 10108	1Ω 5% 0.25W
3368	4822 051 10479	47Ω 2% 0.25W
3370▲	4822 116 52219	330Ω 5% 0.5W
3371▲	4822 053 12153	15k 5% 3W
3372▲	4822 052 10271	270Ω 5% 0.33W
3373▲	4822 052 10271	270Ω 5% 0.33W
3374	4822 050 21502	1k5 1% 0.6W
3375	4822 051 10184	180k 2% 0.25W
3375	4822 051 10823	82k 2% 0.25W
3376	4822 051 10224	220k 2% 0.25W
3376	4822 051 10823	82k 2% 0.25W
3382	4822 051 10102	1k 2% 0.25W
3383	4822 116 52284	47k 5% 0.5W
3384	4822 116 52277	39k 5% 0.5W
3385	4822 051 10473	47k 2% 0.25W
3391	4822 116 52284	47k 5% 0.5W
3392	4822 051 10123	12k 2% 0.25W
3395	4822 051 10122	1k2 2% 0.25W
3396	4822 051 10104	100k 2% 0.25W
3398	4822 051 10008	0Ω 5% 0.25W
3411	4822 116 52222	390Ω 5% 0.5W
3413	4822 116 52222	390Ω 5% 0.5W
3414	4822 051 10439	43Ω 2% 0.25W
3415	4822 116 52222	390Ω 5% 0.5W
3421	4822 051 10154	150k 2% 0.25W
3424	4822 051 20222	2k2 5% 0.1W
3431▲	4822 052 10181	180Ω 5% 0.33W
3431▲	4822 052 10271	270Ω 5% 0.33W
3432▲	4822 052 10229	22Ω 5% 0.33W
3433▲	4822 052 10128	1Ω2 5% 0.33W
3433▲	4822 052 10188	1Ω8 5% 0.33W
3434	4822 050 21502	1k5 1% 0.6W
3435	4822 050 21502	1k5 1% 0.6W
3436	4822 053 20825	8M2 5% 0.25W
3442	4822 116 52239	120k 5% 0.5W
3443▲	4822 051 10242	2k4 2% 0.25W
3443	4822 051 10272	2k7 2% 0.25W
3446	4822 051 10683	68k 2% 0.25W
3447	4822 051 10102	1k 2% 0.25W
3448	4822 051 10008	0Ω 5% 0.25W
3455	4822 051 10102	1k 2% 0.25W
3456	4822 050 11002	1k 1% 0.4W
3457	4822 051 10244	240k 2% 0.25W
3512	4822 051 10228	2Ω2 5% 0.25W
3518	4822 051 10151	150Ω 2% 0.25W
3520	4822 116 52211	150Ω 5% 0.5W
3521	4822 101 20902	4k7 10% LIN 0.05W
3522	4822 051 10152	1k5 2% 0.25W
3524	4822 051 10683	68k 2% 0.25W
3525	4822 100 20169	10k 10% LIN 0.05W
3525	4822 100 20644	22k 10% LIN 0.05W
3526	4822 050 26803	68k 1% 0.6W
3526	4822 050 26804	680k 1% 0.6W
3527	4822 051 10274	270k 2% 0.25W
3528	4822 051 20222	2k2 5% 0.1W
3529	4822 051 10008	0Ω 5% 0.25W
3529	4822 051 10471	470Ω 2% 0.25W
3530	4822 051 10008	0Ω 5% 0.25W
3530	4822 051 10102	1k 2% 0.25W
3531	4822 051 10008	0Ω 5% 0.25W
3531	4822 051 10104	100k 2% 0.25W
3532▲	4822 051 10103	10k 2% 0.25W
3533	4822 116 52207	1k2 5% 0.5W
3533	4822 116 52303	8k2 5% 0.5W
3534▲	4822 052 10828	8Ω2 5% 0.33W
3535	4822 051 10008	0Ω 5% 0.25W
3535	4822 051 10474	470k 2% 0.25W
3571	4822 051 10273	27k 2% 0.25W
3572	4822 051 10153	15k 2% 0.25W
3575	4822 051 10182	1k8 2% 0.25W
3578	4822 116 52245	150k 5% 0.5W
3580▲	4822 051 10103	10k 2% 0.25W
4xxx	4822 051 10008	0Ω 5% 0.25W

∿

5401	4822 156 20966	47μH
5401	4822 157 71295	100μH
5530	4822 152 20559	390μH 10%

▶|

6301	4822 130 30842	BAV21
6302	4822 130 81015	LLZ-C10
6303	4822 130 80877	BAV103
6331	4822 130 80877	BAV103
6345	4822 130 82192	LLZ-C8V2
6361	4822 130 30842	BAV21
6383	4822 130 80446	LL4148
6411	4822 130 32831	BZX79-F3V0
6421▲	4822 130 30621	1N4148
6422	4822 130 81512	LLZ-C6V2
6423	4822 130 34382	BZX79-F8V2
6518	4822 130 80446	LL4148
6519	4822 130 80446	LL4148

⊗ ▭

7302	4822 130 41773	BF869
7303▲	5322 130 41982	BC848B
7304	4822 130 41782	BF422
7305	4822 130 41646	BF423
7331	4822 130 41773	BF869
7333▲	5322 130 41982	BC848B
7334	4822 130 41782	BF422
7335	4822 130 41646	BF423
7345	5322 130 41983	BC858B
7361	4822 130 41773	BF869
7363▲	5322 130 41982	BC848B
7364	4822 130 41782	BF422
7365	4822 130 41646	BF423
7383	4822 130 41782	BF422
7391	4822 130 41646	BF423
7411	4822 130 40937	BC548B
7530	5322 130 60159	BC846B
7533	4822 130 63015	BD440
7534	4822 130 44283	BC636
7537▲	5322 130 41982	BC848B
7538▲	5322 130 41982	BC848B

1003 Euro module [F]

Various

	4822 267 30631	2P cinch female
	4822 267 50621	7P male white
▲	4822 267 50721	9P male white
▲	4822 267 60243	Euroconnector blue
	4822 256 91879	Holder
1003	4822 212 31624	Euro module (non teletext)
1003	4822 212 31625	Euro module (teletext)
1003	4822 212 31626	Euro module (3RD scart + teletext)
1816▲	4822 252 51169	Fuse 250 mA
1910	4822 242 73552	Crystal 13.875MHz

||

2200	4822 121 51299	1nF 10% 50V
2201▲	4822 124 40433	47μF 20% 25V
2202	4822 121 51299	1nF 10% 50V
2203▲	4822 124 40433	47μF 20% 25V
2204	4822 122 31211	100pF 10% 500V
2205	4822 121 51252	470nF 5% 63V
2206	4822 122 31211	100pF 10% 500V
2207	4822 121 51252	470nF 5% 63V
2208	4822 121 51252	470nF 5% 63V
2209	4822 121 51252	470nF 5% 63V
2210	4822 121 51252	470nF 5% 63V
2211▲	4822 124 40433	47μF 20% 25V
2212▲	4822 124 40433	47μF 20% 25V
2213	4822 121 41857	10nF 5% 250V
2214	4822 121 41857	10nF 5% 250V
2215	5322 124 41431	22μF 20% 35V
2216	5322 124 41431	22μF 20% 35V
2217	4822 124 40198	470μF 20% 16V
2218	5322 124 41431	22μF 20% 35V
2219	5322 124 41431	22μF 20% 35V
2220	4822 122 31116	2.2nF 10% 500V
2221	4822 122 31116	2.2nF 10% 500V
2222	4822 122 31116	2.2nF 10% 500V
2223	4822 122 31116	2.2nF 10% 500V
2800	4822 124 41643	100μF 20% 16V
2805	4822 124 40198	470μF 20% 16V
2806	5322 124 41431	22μF 20% 35V
2807▲	4822 124 40246	4.7μF 20% 63V
2808▲	4822 124 40246	4.7μF 20% 63V
2810	4822 124 41643	100μF 20% 16V
2813▲	4822 124 40246	4.7μF 20% 63V
2814	4822 121 41856	22nF 5% 250V
2822	4822 126 13161	100nF 10% 25V
2825	4822 122 32139	12pF 2% 63V
2826	4822 122 32139	12pF 2% 63V
2830	5322 121 42386	100nF 5% 63V
2832	5322 122 32531	100pF 5% 50V
2833▲	4822 124 40196	220μF 20% 16V
2834	4822 126 12944	47nF 10% 50V
2835▲	4822 124 40246	4.7μF 20% 63V
2837	5322 122 32269	6.8pF 5% 50V
2838	4822 124 41643	100μF 20% 16V
2890	4822 126 13161	100nF 10% 25V
2900▲	4822 124 40246	4.7μF 20% 63V
2901▲	4822 124 40433	47μF 20% 25V
2908	4822 122 31211	100pF 10% 500V
2909	4822 122 31211	100pF 10% 500V
2910▲	4822 122 33177	10nF 20% 50V
2911	5322 126 10794	220pF 5% 63V
2912	5322 122 32481	15pF 5% 50V
2913	5322 122 32481	15pF 5% 50V
2914	4822 126 13161	100nF 10% 25V
2915	4822 126 13161	100nF 10% 25V
2916	5322 126 10794	220pF 5% 63V
2917▲	4822 122 33177	10nF 20% 50V
2918	5322 122 32452	47pF 5% 63V
2920	4822 126 13161	100nF 10% 25V
2925▲	4822 122 33177	10nF 20% 50V
2926	5322 124 41431	22μF 20% 35V
2927	4822 124 41643	100μF 20% 16V

▭

3200	4822 116 52211	150Ω 5% 0.5W
3201	4822 051 20563	56k 5% 0.1W
3202	4822 116 52211	150Ω 5% 0.5W
3203	4822 051 20563	56k 5% 0.1W
3204	4822 050 11002	1k 1% 0.4W
3205	4822 050 11002	1k 1% 0.4W
3206	4822 051 20334	330k 5% 0.1W
3207	4822 051 20334	330k 5% 0.1W
3208▲	4822 116 52272	330k 5% 0.5W
3209	4822 051 20334	330k 5% 0.1W
3210	4822 051 20333	33k 5% 0.1W
3211	4822 051 20332	3k3 5% 0.1W
3212	4822 051 20333	33k 5% 0.1W
3213	4822 051 20332	3k3 5% 0.1W
3214	4822 051 20563	56k 5% 0.1W
3215	4822 051 20563	56k 5% 0.1W
3216	4822 116 52201	75Ω 5% 0.5W
3217	4822 116 52201	75Ω 5% 0.5W
3218	4822 051 20153	15k 5% 0.1W
3220	4822 051 20153	15k 5% 0.1W
3222	4822 051 20562	5k6 5% 0.1W
3223	4822 051 20562	5k6 5% 0.1W
3224	4822 051 20562	5k6 5% 0.1W

BTB = Board To Board; WTB = Wire To Board

Spare parts list / Stükliste / Liste des pièces

3225	4822 051 20562	5k6 5% 0.1W
3226	4822 051 20562	5k6 5% 0.1W
3227	4822 051 20562	5k6 5% 0.1W
3228	4822 051 20103	10k 5% 0.1W
3229	4822 051 20103	10k 5% 0.1W
3230	4822 051 20153	15k 5% 0.1W
3231	4822 051 20332	3k3 5% 0.1W
3232	4822 051 20153	15k 5% 0.1W
3233	4822 051 20332	3k3 5% 0.1W
3234	4822 116 52211	150Ω 5% 0.5W
3235	4822 116 52211	150Ω 5% 0.5W
3800▲	4822 116 83953	75Ω 5% 0.125W
3801	4822 050 11201	120Ω 1% 0.4W
3802	4822 051 20101	100Ω 5% 0.1W
3803	4822 051 10102	1k 2% 0.25W
3804	4822 051 20561	560Ω 5% 0.1W
3805	4822 050 11201	120Ω 1% 0.4W
3807	4822 051 10102	1k 2% 0.25W
3808▲	4822 116 83953	75Ω 5% 0.125W
3809	4822 116 80175	4k7 5% 0.5W
3810▲	4822 116 83953	75Ω 5% 0.125W
3811	4822 050 11201	120Ω 1% 0.4W
3812	4822 051 20104	100k 5% 0.1W
3813	4822 051 20104	100k 5% 0.1W
3814	4822 116 52296	6k8 5% 0.5W
3815	4822 050 11002	1k 1% 0.4W
3816	4822 116 52175	100Ω 5% 0.5W
3817	4822 051 10102	1k 2% 0.25W
3818▲	4822 116 52199	68Ω 5% 0.5W
3819	4822 116 80175	4k7 5% 0.5W
3820	4822 116 52175	100Ω 5% 0.5W
3821	4822 051 20101	100Ω 5% 0.1W
3822	4822 116 52195	47Ω 5% 0.5W
3823	4822 116 52175	100Ω 5% 0.5W
3824	4822 051 20221	220Ω 5% 0.1W
3825	4822 051 20222	2k2 5% 0.1W
3826▲	4822 052 10159	15Ω 5% 0.33W
3827	4822 116 52226	560Ω 5% 0.5W
3828	4822 116 52207	1k2 5% 0.5W
3830	4822 051 20561	560Ω 5% 0.1W
3831	4822 116 52296	6k8 5% 0.5W
3832	4822 117 11139	1k5 1% 0.1W
3833	4822 051 20101	100Ω 5% 0.1W
3834▲	4822 053 10221	220Ω 5% 1W
3835	4822 050 11002	1k 1% 0.4W
3836	4822 051 20392	3k9 5% 0.1W
3837	4822 051 20104	100k 5% 0.1W
3838	4822 051 20332	3k3 5% 0.1W
3839	4822 051 20331	330Ω 5% 0.1W
3840	4822 051 20471	470Ω 5% 0.1W
3841	4822 117 11139	1k5 1% 0.1W
3842	4822 116 52175	100Ω 5% 0.5W
3843	4822 051 20223	22k 5% 0.1W
3845	4822 051 20221	220Ω 5% 0.1W
3846▲	4822 116 52215	220Ω 5% 0.5W
3847	4822 116 52175	100Ω 5% 0.5W
3848	4822 051 20101	100Ω 5% 0.1W
3849▲	4822 051 20109	10Ω 5% 0.1W
3851	4822 051 20221	220Ω 5% 0.1W
3885	4822 050 11201	120Ω 1% 0.4W
3886	4822 050 11201	120Ω 1% 0.4W
3887	4822 050 11201	120Ω 1% 0.4W
3890▲	4822 051 20472	4k7 5% 0.1W
3891▲	4822 051 20472	4k7 5% 0.1W
3892▲	4822 051 20472	4k7 5% 0.1W
3893	4822 116 52253	2k 5% 0.5W
3895▲	4822 116 83953	75Ω 5% 0.125W
3896	4822 050 11201	120Ω 1% 0.4W
3897▲	4822 116 83953	75Ω 5% 0.125W
3898	4822 050 11201	120Ω 1% 0.4W
3899	4822 050 11201	120Ω 1% 0.4W
3900▲	4822 052 10279	27Ω 5% 0.33W
3901	4822 051 20271	270Ω 5% 0.1W
3903	4822 051 10102	1k 2% 0.25W
3903	4822 051 20222	2k2 5% 0.1W
3910	4822 051 20153	15k 5% 0.1W
3911	4822 051 10102	1k 2% 0.25W
3912	4822 051 20471	470Ω 5% 0.1W
3913	4822 051 20471	470Ω 5% 0.1W
3914▲	4822 116 52219	330Ω 5% 0.5W
3915	4822 051 20682	6k8 5% 0.1W
3918	4822 051 20221	220Ω 5% 0.1W
3919	4822 051 20221	220Ω 5% 0.1W
3920	4822 051 20473	47k 5% 0.1W
3921	4822 116 52175	100Ω 5% 0.5W
3922	4822 116 52195	47Ω 5% 0.5W
3923	4822 051 20101	100Ω 5% 0.1W
3924	4822 116 52195	47Ω 5% 0.5W
3925	4822 051 20473	47k 5% 0.1W
3926	4822 051 20223	22k 5% 0.1W
3927	4822 051 20333	33k 5% 0.1W
3928	4822 116 52276	3k9 5% 0.5W
3929	4822 051 10102	1k 2% 0.25W

∿

5830	4822 152 20677	10µH
5920	4822 157 53634	5.6µH 10%

▶|

6201	4822 130 80446	LL4148
6206	4822 130 82921	LLZ-F3V9
6207	4822 130 82921	LLZ-F3V9
6208	4822 130 82921	LLZ-F3V9
6209	4822 130 82921	LLZ-F3V9
6800	4822 130 80446	LL4148
6805	4822 130 81015	LLZ-C10
6830	4822 130 80446	LL4148
6831	4822 130 80446	LL4148
6900	4822 130 81227	LLZ-F5V6
6920▲	4822 130 30621	1N4148
6921▲	4822 130 30621	1N4148
6922	4822 130 80446	LL4148
6923	4822 130 80446	LL4148

⊗ ▭

7201	5322 209 10576	HEF4053BP
7202	5322 130 42136	BC848C
7203	5322 130 42136	BC848C
7204	5322 130 42136	BC848C
7205	5322 130 42136	BC848C
7800	5322 130 42136	BC848C
7802	5322 130 42136	BC848C
7805▲	4822 130 41344	BC337-40
7809	5322 130 42136	BC848C
7820	4822 209 31145	TEA6415B
7830	5322 130 42136	BC848C
7831	5322 130 42136	BC848C
7832	5322 130 42136	BC848C
7833	5322 130 42136	BC848C
7834	5322 130 42136	BC848C
7890	5322 209 10576	HEF4053BP
7892	4822 130 42513	BC858C
7893	4822 130 42513	BC858C
7894	4822 130 42513	BC858C
7900	4822 130 63558	BD533
7910	4822 209 52606	CF72306
7920	4822 209 52605	CF70200B
7921	5322 130 42136	BC848C
7922	5322 130 60159	BC846B

1007 SOPS controle module [G]

Various

	4822 265 31137	6P pinstrip BTB
	4822 265 31138	4P pinstrip BTB
1007	4822 212 31669	SOPS control module 90°
1007	4822 212 31715	SOPS control module 110°

⊣⊢

2611	4822 121 41299	68µF 20% 50V
2629	4822 122 31784	4.7nF 10% 50V
2636	4822 122 31644	2.2nF 10% 63V
2637	4822 122 31772	47pF 2% 63V
2646	4822 124 80465	15µF 10% 25V
2647	4822 122 31784	4.7nF 10% 50V
2649	4822 122 33496	100nF 10% 63V
2650	4822 122 33496	100nF 10% 63V
2651	4822 122 33496	100nF 10% 63V
2661▲	4822 124 40433	47µF 20% 25V
2662	4822 122 32142	270pF 2% 63V
2663	4822 122 31765	100pF 2% 63V *
2663	4822 122 31839	82pF 2% 63V
2664	4822 124 41379	2.2µF 20% 50V
2665	4822 122 32153	1.8nF 10% 63V
2670	5322 122 31766	120pF 2% 63V
2671	5322 121 42408	220nF 5% 63V
2674	4822 122 31644	2.2nF 10% 63V

▭

3623	4822 050 21604	160K 1% 0.6W
3624	4822 050 21604	160K 1% 0.6W
3625▲	4822 053 21564	560k 5% 0.5W
3628	4822 051 10334	330k 2% 0.25W
3629	4822 051 10682	6k8 2% 0.25W
3636	4822 051 10224	220K 2% 0.25W
3647	4822 050 23303	33K 1% 0.6W *
3647	4822 050 23603	36K 1% 0.6W
3648	4822 051 10273	27k 2% 0.25W
3649▲	4822 050 23309	330k 5% 0.5W
3658▲	4822 052 10688	6R8 5% 0.33W
3660	4822 051 10101	100Ω 2% 0.25W
3661	4822 051 10361	360Ω 2% 0.25W
3662	4822 051 10221	220Ω 2% 0.25W
3663	4822 051 10562	5k6 2% 0.25W
3664	4822 051 10272	2k7 2% 0.25W
3665▲	4822 051 10822	8k2 2% 0.25W *
3665▲	4822 051 10123	12k 2% 0.25W
3666	4822 051 10102	1k0 2% 0.25W
3667	4822 051 10361	360Ω 2% 0.25W
3670	4822 051 10303	30k0 2% 0.25W
3671	4822 051 10102	1k0 2% 0.25W
3672▲	4822 051 10103	10k0 2% 0.25W
3673	4822 051 54702	4k7 1% 0.125W *
3673	4822 051 54642	4k64 1% 0.125W
3674	4822 051 59101	910Ω 1% 0.125W *
3674	4822 051 51052	1K05 1% 0.125W
3676	4822 051 10682	6k8 2% 0.25W
3680	4822 051 10562	5k6 2% 0.25W *
3681	4822 051 10109	10Ω 2% 0.25W

∿

5661	4822 157 60449	10µH

▶|

6646	4822 130 41488	BYD33D
6648	4822 130 34488	BZX79-F12
6648	4822 130 61219	BZX79-F10 *
6649	4822 130 80446	LL4148
6660	4822 130 30621	1N4148
6662	4822 130 80905	LLZ-F5V1
6663	4822 130 34281	BZX79-F15
6664	4822 130 31983	BAT85
6665	4822 130 80883	LLZ-C4V7
6669	4822 130 80446	LL4148
6670	4822 130 20272	EO102AA

⊗ ▭

7600	5322 209 63735	TDA8385/N2
7614	5322 130 30992	CNR50
7661	5322 130 42631	BD533
7663	5322 130 42153	BC858C
7671	5322 130 61207	BC848C

* only for 90 degree module

1008 COMB filter [H]

Various

▲	4822 267 40624	5P male vert white
	4822 267 41114	5P female hor white
	4822 265 31137	6P pinstrip
1008	4822 212 30984	COMB filter module

⊣⊢

2309	4822 122 31971	10pF 2% 63V
2400	4822 124 80701	47µF 20% 6.3V
2401	4822 122 33342	33nF 10% 63V
2402	4822 124 80701	47µF 20% 6.3V
2403	4822 122 33342	33nF 10% 63V
2404	4822 124 80701	47µF 20% 6.3V
2405	4822 122 33342	33nF 10% 63V
2406	4822 124 80248	10µF 20% 16V
2407	4822 122 33342	33nF 10% 63V
2408	4822 124 80248	10µF 20% 16V
2409	4822 122 33342	33nF 10% 63V
2410	4822 124 80248	10µF 20% 16V
2411	4822 122 33342	33nF 10% 63V
2412	4822 122 33342	33nF 10% 63V
2413	4822 124 80248	10µF 20% 16V
2416	4822 122 33216	270pF 5% 50V
2417	4822 122 33342	33nF 10% 63V
2418	4822 124 80248	10µF 20% 16V
2419	4822 122 33342	33nF 10% 63V
2420▲	4822 122 33177	10nF 20% 50V
2421▲	4822 122 33177	10nF 20% 50V
2422	5322 122 32531	100pF 5% 50V
2423▲	4822 122 33177	10nF 20% 50V
2424	4822 122 33342	33nF 10% 63V
2425	5322 122 32452	47pF 5% 63V
2426	4822 122 33342	33nF 10% 63V
2430	4822 124 80248	10µF 20% 16V
2431	5322 122 32658	22pF 5% 50V
2432	4822 122 33342	33nF 10% 63V

▭

3402	4822 051 20103	10k 5% 0.1W
3403	4822 051 20101	100Ω 5% 0.1W
3404	4822 051 20301	300Ω 5% 0.1W
3406	4822 051 20105	1M 5% 0.1W
3407	4822 051 20103	10k 5% 0.1W
3410	4822 051 20103	10k 5% 0.1W
3411	4822 051 20222	2k2 5% 0.1W
3412	4822 051 20391	390Ω 5% 0.1W
3413	4822 051 20223	22k 5% 0.1W
3414	4822 051 20122	1k2 5% 0.1W
3416	4822 051 20681	680Ω 5% 0.1W
3418	4822 051 10102	1k 2% 0.25W
3419	4822 051 20181	180Ω 5% 0.1W
3420	4822 051 20473	47k 5% 0.1W
3421	4822 051 20473	47k 5% 0.1W
3422	4822 051 10102	1k 2% 0.25W
3423	4822 051 20471	470Ω 5% 0.1W
3424	4822 051 20151	150Ω 5% 0.1W
3425	4822 051 20471	470Ω 5% 0.1W
3426	4822 051 20122	1k2 5% 0.1W
3427	4822 051 20479	47Ω 5% 0.1W
3428	4822 051 20821	820Ω 5% 0.1W
3429	4822 051 20479	47Ω 5% 0.1W
3430	4822 051 20561	560Ω 5% 0.1W
3431	4822 051 20331	330Ω 5% 0.1W
3432	4822 051 20223	22k 5% 0.1W
3433	4822 051 20221	220Ω 5% 0.1W
3434	4822 051 20221	220Ω 5% 0.1W
3435	4822 051 10102	1k 2% 0.25W
3436	4822 051 20339	33Ω 5% 0.1W
3438	4822 051 20821	820Ω 5% 0.1W
3439	4822 051 20431	430Ω 5% 0.1W
3440	4822 051 20101	100Ω 5% 0.1W
3443	4822 051 20008	0Ω jumper
3444	4822 051 20008	0Ω jumper
3445	4822 051 20008	0Ω jumper
3446	4822 051 20681	680Ω 5% 0.1W
3447	4822 051 20162	1k6 5% 0.1W
3448	4822 051 20681	680Ω 5% 0.1W
3449	4822 051 20151	150Ω 5% 0.1W

∿

5400	4822 152 20677	10µH
5401	4822 152 20677	10µH
5402	4822 152 20677	10µH
5403	4822 157 63065	0.68µH
5404	4822 152 20677	10µH
5405	4822 152 20677	10µH

▶|

6420	4822 130 80446	LL4148

⊗ ▭

7400	4822 209 32587	MC141625A
7401	5322 130 42136	BC848C
7402	4822 130 61207	BC848
7403	4822 130 61207	BC848
7404	4822 130 61207	BC848
7405	5322 130 42012	BC858
7410	5322 130 42012	BC858
7411	4822 130 61207	BC848
7420	5322 130 42136	BC848C
7421	5322 130 42136	BC848C
7422	4822 130 42513	BC858C
7423	4822 130 42513	BC858C
7430	5322 209 14481	HEF4053BT

BTB = Board To Board; WTB = Wire To Board

1003 IF module [J/K/L/M]

Various

	4822 265 31059	5P red
1003	4822 212 31618	IF module Nicam PAL I
1003	4822 212 31619	IF module Stereo PAL BG
1003	4822 212 31621	IF module Nicam PAL BG
1003	4822 212 31622	IF module Stereo P/S BGLI
1003	4822 212 31623	IF module Stereo P/S BG/DK
1000	4822 242 80295	SAW 38.9 MHz Stereo PAL BG
1000	4822 242 81436	SAW 38.9 MHz Stereo P/S
1000	4822 242 81717	SAW 38.9 MHz NICAM PAL BG
1000	4822 242 81718	SAW 38.9 MHz NICAM PAL I
1001	4822 153 30025	6.0 MHz
1001	4822 242 72211	5.5 MHz
1100	4822 242 70714	5.5 MHz
1100	4822 242 71713	6.0 MHz
1101	4822 242 70485	5.74 MHz
1102	4822 242 70714	5.5 MHz
1102	4822 242 71713	6.0 MHz
1102	4822 242 72057	6.5 MHz
1103	4822 242 81423	38.9 MHz P/S BGLI
1103	4822 242 81716	38.9 MHz P/S BGDK
1104	4822 242 81715	33.4 MHz
1200	4822 242 81813	Crystal 10 MHz
1300	4822 242 81187	Crystal 11.700 MHz
1300	4822 242 81188	Crystal 13.104 MHz
1301	4822 242 81719	Crystal 8.192 MHz
1302	4822 242 72301	TH316BOM-20800 DAF
1302	4822 242 72303	TH316BQM

⊣⊢

2000	4822 126 13159	180pF 5% 50V
2001	4822 126 13162	56pF 5% 50V
2002	4822 126 13161	100nF 10% 25V
2003	4822 124 41576	2.2µF 20% 50V
2004	4822 122 32927	220nF 20% 50V
2004	4822 126 13061	220nF 20% 25V
2005▲	5322 126 10223	4.7nF 10% 63V
2007	5322 122 31866	6.8nF 10% 63V
2007▲	5322 126 10223	4.7nF 10% 63V
2008	4822 126 13161	100nF 10% 25V
2008	4822 126 13346	39nF 10% 50V
2009	4822 124 41576	2.2µF 20% 50V
2010▲	4822 124 40246	4.7µF 20% 63V
2010▲	4822 124 40433	47µF 20% 25V
2011	5322 122 32269	6.8pF 5% 50V
2011	5322 122 32286	3.3pF 5% 50V
2012▲	4822 122 33177	10nF 20% 50V
2013	4822 126 13161	100nF 10% 25V
2014	4822 122 33496	100nF 10% 63V
2015	4822 124 41643	100µF 20% 16V
2016▲	4822 122 33177	10nF 20% 50V
2017	4822 126 13161	100nF 10% 25V
2018	4822 122 32646	5.6nF 10% 50V
2018	4822 126 13161	100nF 10% 25V
2020	5322 122 33537	1.2pF 5% 63V
2021	5322 122 33063	2.2pF 5% 50V
2100	5322 124 41431	22µF 20% 35V
2101	5322 124 41431	22µF 20% 35V
2102▲	5322 126 10223	4.7nF 10% 63V
2103▲	5322 126 10223	4.7nF 10% 63V
2106▲	5322 126 10223	4.7nF 10% 63V
2107	4822 124 41576	2.2µF 20% 50V
2108▲	5322 126 10223	4.7nF 10% 63V
2200	4822 122 33219	1.8nF 10% 50V
2201	4822 051 10008	Jumper
2202▲	4822 122 33177	10nF 20% 50V
2203	4822 126 13161	100nF 10% 25V
2204	4822 126 13161	100nF 10% 25V
2205▲	4822 122 33342	33nF 10% 63V
2206	4822 122 32646	5.6nF 10% 50V
2207	4822 122 32646	5.6nF 10% 50V
2208▲	4822 122 33342	33nF 10% 63V
2209	4822 122 33128	15nF 10% 63V
2210	4822 122 33128	15nF 10% 63V
2211	4822 126 13161	100nF 10% 25V
2212	4822 126 13161	100nF 10% 25V
2214	4822 124 40248	10µF 20% 63V
2215▲	4822 124 40196	220µF 20% 16V
2216▲	4822 124 40246	4.7µF 20% 63V
2217	4822 124 41643	100µF 20% 16V
2218▲	4822 124 40433	47µF 20% 25V
2219▲	4822 124 40246	4.7µF 20% 63V
2220▲	4822 124 40196	220µF 20% 16V
2221▲	4822 124 40196	220µF 20% 16V
2222	5322 121 42498	680nF 5% 63V
2223	5322 121 42498	680nF 5% 63V
2224	4822 122 32927	220nF 20% 50V
2225	4822 122 32927	220nF 20% 50V
2226	4822 124 41643	100µF 20% 16V
2227	4822 124 41643	100µF 20% 16V
2228	4822 124 41643	100µF 20% 16V
2228	4822 124 80702	100µF 20% 25V
2229	4822 124 41643	100µF 20% 16V
2230	5322 124 41431	22µF 20% 35V
2231	5322 124 41431	22µF 20% 35V
2232	5322 122 34098	10nF 10% 63V
2233	5322 122 34098	10nF 10% 63V
2234	4822 122 32927	220nF 20% 50V
2235	4822 122 32927	220nF 20% 50V
2236	4822 122 32927	220nF 20% 50V
2237	5322 124 41431	22µF 20% 35V
2238	5322 124 41431	22µF 20% 35V
2300	4822 121 42408	220nF 5% 63V
2301	4822 126 13161	100nF 10% 25V
2302	4822 126 13161	100nF 10% 25V
2303	4822 122 33514	68pF 5% 50V
2304	5322 122 31863	330pF 5% 50V
2305	4822 126 13161	100nF 10% 25V
2306	5322 122 33538	150pF 2% 63V
2307	5322 122 33538	150pF 2% 63V
2308▲	5322 122 34123	1nF 10% 50V
2309	4822 126 13161	100nF 10% 25V
2310	5322 122 31863	330pF 5% 50V
2311	5322 122 31866	6.8nF 10% 63V
2312	5322 122 31863	330pF 5% 50V
2313▲	4822 124 40433	47µF 20% 25V
2318	5322 122 31863	330pF 5% 50V
2319	4822 122 33514	68pF 5% 50V
2320▲	4822 122 33172	390pF 5% 50V
2321▲	5322 122 34123	1nF 10% 50V
2322▲	4822 122 33177	10nF 20% 50V
2323▲	5322 122 32654	22nF 10% 63V
2324	5322 121 42661	330nF 5% 63V
2325▲	5322 122 34123	1nF 10% 50V
2328▲	4822 122 33177	10nF 20% 50V
2329	5322 122 32659	33pF 5% 50V
2330	5322 122 32659	33pF 5% 50V
2331	5322 122 32531	100pF 5% 50V
2332	5322 122 32531	100pF 5% 50V
2333▲	4822 122 33177	10nF 20% 50V
2334	4822 126 13161	100nF 10% 25V
2335	4822 126 13161	100nF 10% 25V
2336▲	4822 124 40433	47µF 20% 25V
2340▲	4822 122 33177	10nF 20% 50V
2343	4822 122 33219	1.8nF 10% 50V
2343▲	5322 122 32654	22nF 10% 63V
2344	4822 122 33219	1.8nF 10% 50V
2344▲	5322 122 32654	22nF 10% 63V
2347	4822 124 41643	100µF 20% 16V

▭

3000	4822 116 52211	150Ω 5% 0.5W
3001	4822 101 11192	22k 30% LIN 0.1W
3002	4822 051 20181	180Ω 5% 0.1W
3004	4822 116 52289	5k6 5% 0.5W
3011	4822 051 20223	22k 5% 0.1W
3011	4822 116 52257	22k 5% 0.5W
3012	4822 051 20223	22k 5% 0.1W
3013	4822 051 20101	100Ω 5% 0.1W
3013	4822 051 20151	150Ω 5% 0.1W
3013	4822 051 20181	180Ω 5% 0.1W
3013	4822 051 20271	270Ω 5% 0.1W
3013	4822 051 20391	390Ω 5% 0.1W
3014	4822 051 20123	12k 5% 0.1W
3015	4822 051 20223	22k 5% 0.1W
3016	4822 051 20562	5k6 5% 0.1W
3018	4822 051 20106	10M 5% 0.1W
3019	4822 051 20474	470k 5% 0.1W
3024	4822 051 20562	5k6 5% 0.1W
3026▲	4822 052 10109	10Ω 5% 0.33W
3027	4822 051 20122	1k2 5% 0.1W
3031	4822 051 20222	2k2 5% 0.1W
3033	4822 053 10688	6Ω8 5% 1W
3034	4822 051 20101	100Ω 5% 0.1W
3098	4822 051 20104	100k 5% 0.1W
3098	4822 051 20223	22k 5% 0.1W
3098	4822 051 20224	220k 5% 0.1W
3098	4822 051 20564	560k 5% 0.1W
3098	4822 051 20822	8k2 5% 0.1W
3100	4822 051 20561	560Ω 5% 0.1W
3101	4822 051 20561	560Ω 5% 0.1W
3102	4822 051 20561	560Ω 5% 0.1W
3103	4822 051 20222	2k2 5% 0.1W
3104	4822 051 20103	10k 5% 0.1W
3106	4822 116 52234	100Ω 5% 0.5W
3107	4822 116 52234	100Ω 5% 0.5W
3108	4822 051 20471	470Ω 5% 0.1W
3109	4822 051 20471	470Ω 5% 0.1W
3113	4822 116 52234	100Ω 5% 0.5W
3114	4822 051 20103	10k 5% 0.1W
3115	4822 051 20103	10k 5% 0.1W
3116	4822 051 20103	10k 5% 0.1W
3117	4822 051 20222	2k2 5% 0.1W
3200	4822 051 10102	1k 2% 0.25W
3207	4822 051 20822	8k2 5% 0.1W
3208▲	4822 052 10181	180Ω 5% 0.33W
3211	4822 051 20122	1k2 5% 0.1W
3212	4822 051 20223	22k 5% 0.1W
3212	4822 051 20473	47k 5% 0.1W
3214	4822 051 20222	2k2 5% 0.1W
3218	4822 051 20474	470k 5% 0.1W
3219	4822 051 20564	560k 5% 0.1W
3220	4822 051 20563	56k 5% 0.1W
3221	4822 051 20563	56k 5% 0.1W
3222	4822 051 20823	82k 5% 0.1W
3223	4822 051 20333	33k 5% 0.1W
3224	4822 051 20101	100Ω 5% 0.1W
3225	4822 051 20101	100Ω 5% 0.1W
3230	4822 051 20562	5k6 5% 0.1W
3231	4822 051 20332	3k3 5% 0.1W
3232	4822 051 10102	1k 2% 0.25W
3233	4822 051 10102	1k 2% 0.25W
3234	4822 051 20101	100Ω 5% 0.1W
3234▲	4822 052 10181	180Ω 5% 0.33W
3235	4822 051 20101	100Ω 5% 0.1W
3237	4822 051 20823	82k 5% 0.1W
3238	4822 051 20333	33k 5% 0.1W
3240	4822 051 20101	100Ω 5% 0.1W
3241	4822 051 20101	100Ω 5% 0.1W
3300	4822 051 20563	56k 5% 0.1W
3301▲	4822 051 20109	10Ω 5% 0.1W
3302	4822 051 20228	2Ω2 5% 0.1W
3303	4822 051 20392	3k9 5% 0.1W
3304	4822 051 20223	22k 5% 0.1W
3305	4822 051 20223	22k 5% 0.1W
3306	4822 051 20104	100k 5% 0.1W
3307	4822 051 20159	15Ω 5% 0.1W
3308	4822 051 20224	220k 5% 0.1W
3309	4822 051 20823	82k 5% 0.1W
3314	4822 051 20471	470Ω 5% 0.1W
3315	4822 051 20563	56k 5% 0.1W
3316	4822 051 10102	1k 2% 0.25W
3317	4822 051 20105	1M 5% 0.1W
3318	4822 051 20223	22k 5% 0.1W
3319	4822 117 11139	1k5 1% 0.1W
3320	4822 051 20103	10k 5% 0.1W
3321	4822 051 20104	100k 5% 0.1W
3322	4822 051 20273	27k 5% 0.1W
3323	4822 051 20104	100k 5% 0.1W
3324	4822 051 20103	10k 5% 0.1W
3326	4822 051 20681	680Ω 5% 0.1W
3327	4822 051 20182	1k8 5% 0.1W
3328	4822 117 11139	1k5 1% 0.1W
3329	4822 051 20331	330Ω 5% 0.1W
3331	4822 051 20332	3k3 5% 0.1W
3332	4822 051 20332	3k3 5% 0.1W
3333	4822 116 52224	470Ω 5% 0.5W
3334	4822 051 20122	1k2 5% 0.1W
3335	4822 051 20471	470Ω 5% 0.1W
3336	4822 051 20101	100Ω 5% 0.1W
3337	4822 051 20101	100Ω 5% 0.1W
3340	4822 051 20122	1k2 5% 0.1W
3341	4822 051 20471	470Ω 5% 0.1W
4xxx	4822 051 10008	0Ω 5% 0.25W

∿

5000	4822 157 61898	0.47µH 10%
5001	4822 157 71099	0.28µH 10%
5002	4822 157 53066	15µH 10%
5002	4822 157 53303	12µH 10%
5002	4822 157 53634	5.6µH 10%
5002	4822 157 62767	8.2µH
5004	4822 157 53302	1µH
5004	4822 157 53539	0.27µH 5%
5100	4822 157 71098	1.8µH
5201	4822 157 71296	1500µH
5300	4822 157 50975	1 mH
5301	4822 157 50975	1 mH

▶|

6003	4822 130 80446	LL4148
6007	4822 130 80954	LLZ-C5V6
6007	4822 130 81227	LLZ-F5V6
6100	4822 130 80888	BA682
6106	4822 130 80888	BA682
6107	4822 130 80888	BA682
6200	4822 130 80446	LL4148
6201	4822 130 80446	LL4148
6202	4822 130 82192	LLZ-C8V2
6203	4822 130 80446	LL4148
6204	4822 130 80446	LL4148
6205	4822 130 82192	LLZ-C8V2
6206	4822 130 80446	LL4148
6207	4822 130 80446	LL4148
6208	4822 130 80446	LL4148
6209	4822 130 80446	LL4148
6300	4822 130 80446	LL4148
6301	5322 130 34689	BBY31
6302	5322 130 80119	BBY40

⊗ ▭

7001	5322 209 10576	HEF4053BP
7004	4822 209 33707	TDA9815/V2
7005	5322 130 42136	BC848C
7008	4822 130 44121	BC338
7102	5322 130 42136	BC848C
7103	5322 130 42136	BC848C
7104	5322 130 42136	BC848C
7201	5322 130 42136	BC848C
7202	4822 130 42513	BC858C
7203	5322 130 42136	BC848C
7204	4822 209 33706	TDA9861/V1
7205	4822 209 32863	TDA9840/V2
7206	5322 130 42136	BC848C
7207	5322 130 42136	BC848C
7208	5322 130 42136	BC848C
7209	4822 130 42513	BC858C
7302	5322 130 42136	BC848C
7303	5322 130 42136	BC848C
7304	4822 209 30909	TDA8732/C1
7305	4822 209 32959	SAA7282AZP
7306	5322 130 42136	BC848C
7307	5322 130 42136	BC848C

1006 Third scart module [N]

Various

	4822 265 31214	3P male black
▲	4822 267 50721	9P male white
	4822 267 51276	9P female white
	4822 267 60366	Euroconnector
1006	4822 212 31631	Third scart module

⊣⊢

2950	4822 124 41643	100µF 20% 16V
2951	4822 122 31116	2.2nF 10% 500V
2952	4822 122 31116	2.2nF 10% 500V
2953	4822 122 31211	100pF 10% 500V
2954	4822 122 31211	100pF 10% 500V
2955	4822 121 51252	470nF 5% 63V
2956	4822 121 51252	470nF 5% 63V
2957	4822 121 51252	470nF 5% 63V
2958	4822 121 51252	470nF 5% 63V
2959	4822 121 51252	470nF 5% 63V
2960	4822 122 32927	220nF 20% 50V
2961	4822 122 32927	220nF 20% 50V
2962	4822 122 32927	220nF 20% 50V
2963	4822 122 32927	220nF 20% 50V
2964	4822 122 31116	2.2nF 10% 500V
2965	4822 122 31116	2.2nF 10% 500V
2975	4822 124 41643	100µF 20% 16V
2978▲	4822 124 40246	4.7µF 20% 63V
2980	4822 126 13161	100nF 10% 25V
2981	4822 121 41856	22nF 5% 250V

▭

3951	4822 116 52211	150Ω 5% 0.5W
3952	4822 116 52211	150Ω 5% 0.5W
3953▲	4822 116 52269	3k3 5% 0.5W
3954▲	4822 116 52269	3k3 5% 0.5W
3955	4822 051 20334	330k 5% 0.1W
3956	4822 051 20334	330k 5% 0.1W
3957	4822 051 20334	330k 5% 0.1W
3958	4822 051 20334	330k 5% 0.1W
3959	4822 051 20332	3k3 5% 0.1W
3960	4822 051 20332	3k3 5% 0.1W
3961	4822 051 20683	68k 5% 0.1W
3962	4822 051 20683	68k 5% 0.1W
3963	4822 051 20104	100k 5% 0.1W
3964	4822 051 20332	3k3 5% 0.1W
3965	4822 051 20104	100k 5% 0.1W

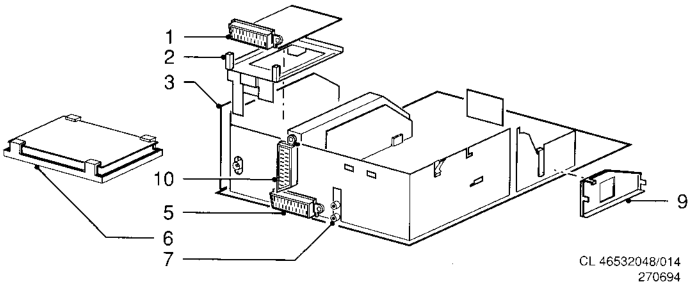
BTB = Board To Board; WTB = Wire To Board

3966	4822 051 20332	3k3 5% 0.1W
3967	4822 051 20104	100k 5% 0.1W
3968	4822 051 20104	100k 5% 0.1W
3969	4822 051 20683	68k 5% 0.1W
3970	4822 051 20683	68k 5% 0.1W
3971	4822 051 20153	15k 5% 0.1W
3972▲	4822 116 52233	10k 5% 0.5W
3973	4822 051 20222	2k2 5% 0.1W
3974	4822 116 80173	10k 5% 0.5W
3975	4822 116 52201	75Ω 5% 0.5W
3976	4822 050 11002	1k 1% 0.4W
3977	4822 116 52175	100Ω 5% 0.5W
3978	4822 116 52201	75Ω 5% 0.5W
3979	4822 116 52175	100Ω 5% 0.5W
3980	4822 051 20221	220Ω 5% 0.1W
3981	4822 051 20471	470Ω 5% 0.1W
3982	4822 051 20101	100Ω 5% 0.1W
3983	4822 051 20471	470Ω 5% 0.1W
3985▲	4822 116 52256	2k2 5% 0.5W
3986	4822 116 52296	6k8 5% 0.5W
3987	4822 116 80175	4k7 5% 0.5W
3988	4822 051 20182	1k8 5% 0.1W
3989	4822 051 20182	1k8 5% 0.1W
3990	4822 116 52175	100Ω 5% 0.5W
3991	4822 116 52211	150Ω 5% 0.5W
3992	4822 116 52211	150Ω 5% 0.5W

5950	4822 157 53634	5.6μH 10%

6950	4822 130 80446	LL4148

7950	5322 209 10576	HEF4053BP
7951	5322 130 42136	BC848C
7952	5322 130 42136	BC848C
7953	5322 130 42136	BC848C
7954	5322 130 42136	BC848C
7975	5322 130 42136	BC848C
7976	5322 130 42136	BC848C
7977	4822 130 42513	BC858C
7978	4822 130 42513	BC858C
7979	5322 130 42136	BC848C



CL 46532048/014
270694

Mechanical parts list

1	4822 267 60366	Third scart euroconnector
2	4822 404 31322	3rd scart holder
3	Not applicable	
5	4822 267 60243	Euroconnector
6	4822 403 70926	Sep. mains holder
7	4822 267 30631	2 Fold cinch
9	4822 404 31317	Mains filter bracket
10	4822 267 60243	Euroconnector

BTB = Board To Board; WTB = Wire To Board